

XXVIII. *Notes on Chalcidites, and Characters of undescribed Species.* By F. WALKER, Esq., F.L.S.

[Read 7th July, 1862.]

THE *Chalcididæ* described by Fabricius are hardly characterized with sufficient precision to identify the species. *Chalcis dimidiata*, Fabr., may be identical with *Smiera Lamyrus*; *C. pyramidea*, Fabr., is parasitic on *Epipone nidulans*, and *C. annulata*, Fabr., infests the pupa of *Ophideres materna*. *C. Mneston* is a synonym of *C. annulata*. *Smiera amœna* (parasitic on the pupa of a *Thecla*) and *S. debilis* have been described by Say. Klug, in his "*Symbolæ Physicæ*," describes the following species, inhabiting Egypt and Arabia:—*Smiera pensilis*, *Chalcis rubens*, *C. decorata*, *C. albicrus*, *C. brevicornis*, *C. pubescens*, *C. agilis* and *C. pumila*. *C. albicrus* feeds on the pupa of *Euplœa Chrysippus*, and *C. Euplœæ* is parasitic on an East Indian species of *Euplœa*, and perhaps is the same as *C. Lusus*. *Chalcitella evanioides*, West., inhabits the Mauritius.

The European *Smiera nigrifex* is a native also of North America, where its characters are slightly modified. In the *Smieræ* of the latter region there is a transition of the colour of the species from black to yellow and to luteous, and the luteous species abound in South America. A species of *Smiera* from Florida is included with the West Indian *S. fulvescens* in the British Museum list of *Chalcidites*; it may be termed *S. transitiva*, and it differs from *S. fulvescens* in having a black stripe on the thorax and a black streak on each of the coxæ; the wings are a little darker in colour, and the size is rather larger.

*Chalcis minuta* of Europe also appears in North America, but with more limpid wings than those of the European race. *Phasgonophora sulcata* is the extreme form of a group of *Halticella*, which has some representatives in South America, but chiefly abounds in the Eastern Isles.

In Mexico *Smiera Pylus* hardly differs from the West Indian *S. punctata*. The distinction between *Smiera* and *Chalcis* with regard to the relative length of the petiole is obliterated in *S. tenebrosa*, though the latter species does not differ from *Smiera* in its other characters.

The West Indian *Smiera punctata* also occurs in South America, but with the black markings somewhat reduced in size. *S. leuco-*

*telus*, like *S. tenebrosa*, has a petiole not longer than that of *Chalcis*.

*S. erythrotelus*, *S. stylata* and *S. mesomelas* form a transition group between *Smiera* and *Halticella*, and are distinguished from the typical species of the former genus by the longer antennæ, the oblique face, and the short petiole.

#### SECT. I.

##### GENUS LEUCOSPIS.

##### *Leucospis semirufa*.

*Fœm.*—Nigra; prothorax flavo tenuissimè bifasciatus; metathorax liturâ transversâ flavâ; abdomen rufum, apice nigrum; oviductus brevis; femora postica flavo marginata; tibiæ posticæ apice flavæ; tarsi flavi; alæ nigricantes.

*Female.*—Black, thickly and minutely punctured. Prothorax with two very slender yellow bands, which recede from each other on each side. Metathorax with a transverse yellow mark. Abdomen red, except at the tip. Oviduct reflexed to less than half the length of the abdomen. Hind-femora bordered with yellow; hind-tibiæ with yellow tips; tarsi yellow. Wings blackish.

Length of the body 5 lines; of the wings 9 lines.

Makassar, Celebes. In Mr. Saunders' collection.

##### GENUS METAMORPHA.

*Fœm.*—Corpus læve, nitens. Caput transversum, subquadratum. Palpi gracillimi. Antennæ graciles, pubescentes. Prothorax subquadratus, bene determinatus, humeris rotundatis. Mésothorax elongatus, parapsidum suturis distinctissimis, scutello conico, parapteris magnis. Metathorax scaber, bene determinatus. Petiolus brevissimus. Abdomen compressum, valdè gibbosum, thorace brevius. Oviductus recurvus, longissimus. Pedes sat graciles. Alæ longæ, angustæ.

*Female.*—Body smooth, shining. Head transverse, subquadrate, as broad as the thorax, from which it is separated by a distinct neck; front vertical. Palpi very slender. Antennæ slender, pubescent, mutilated in the specimen described; joints long. Thorax subfusiform. Prothorax much developed, not broader than long, hardly narrower in front, where it is rounded on each side. Scutum elongate, sutures of the parapsides very distinct; scutellum conical, prominent; paraptera large. Metathorax well developed, scabrous. Petiole very short. Abdomen compressed, gibbous, and forming a vertical cone at its base, much shorter than the thorax. Oviduct recurved, very much longer than the

body. Legs not incrassated; tibiæ with short apical spurs; hind-coxæ long. Wings long, narrow. Fore-wings with the humerus emitting into the disk, at a little beyond half its length, a branch from whence the two spurious veins proceed; ulna rather less than one-third of the length of the humerus; radius extending nearly to the tip of the wings, more than twice the length of the ulna; cubitus very short, furcate.

This genus belongs to the *Tonymidæ*, and is most nearly allied to *Megastigmus*, but it has also a tendency to the structure of the *Leucospidæ*, and shows the transition between these two families.

*Metamorphæ leucospoides.*

*Fœm.*—Nigra; caput antice flavum nigro vittatum, oculis flavo submarginatis; prothorax flavo quadrimaculatus; parapsides, paraptera et scutellum flavo marginata; abdomen basi subtusque flavum, segmentis flavo marginatis; pedes lutei, coxis flavis nigro variis, femoribus posticis nigris apice luteis, tibiis tarsisque posticis flavis; alæ lurido-cinereæ.

*Female.*—Black. Head in front yellow, with a black stripe; orbits of the eyes yellow, except on each side of the vertex. Prothorax with a large yellow spot on each side, and with two triangular spots on the hind border. Parapsides, scutellum and paraptera bordered with yellow; hind border of the mesothorax also yellow. Abdomen yellow at the base and beneath; hind borders of the segments with yellow lines, which are interrupted in the middle and dilated on each side. Legs luteous; coxæ yellow, varied with black; hind-femora black, with luteous tips; hind-tibiæ and hind-tarsi yellow. Wings cinereous, with a lurid tinge; veins black.

Length of the body 6 lines; of the wings 10 lines.

Bootan. Discovered by Dr. Pemberton.

Genus SMIERA.

*Smiera referator.*

*Fœm.*—Luteo-flava; caput et thorax scabrosa; caput supra nigrum; antennæ piceæ, filiformes, subtus luteæ, scapo flavo; thorax plagâ strigâque nigris, scutello inermi; petiolus brevis; abdomen compressum, lanceolatum, thorace duplo longius, segmentorum discis nigris; pedes nigro vittati, femoribus posticis dentatis; alæ cinereæ, apud costam lutescentes.

*Female.*—Luteous-yellow, pubescent. Head and thorax largely

scabrous. Head black above; face vertical. Antennæ piccous, filiform, luteous beneath; scape yellow. Thorax with the usual structure; disk black; scutellum unarmed, with a black streak. Petiole short. Abdomen compressed, lanceolate, much narrower than the thorax, and about twice its length; segments with black disks. Coxæ, femora and hind-tibiæ with black stripes; hind-femora much incrassated, with very large teeth. Wings cinereous, with a luteous tinge along the costa; veins black; ulna full half the length of the humerus; radius nearly as long as the ulna; cubitus very short.

Length of the body 5 lines; of the wings 6 lines.

Ega. Discovered by Mr. Bates. In the British Museum.

*Smicra illata.*

*Mas.*—Nigra; caput apud oculos flavum; antennæ basi subtus flavæ; prothorax flavo marginatus; mesothorax flavo bistrigatus et bimaculatus; petiolus longus; abdomen breve; pedes flavi, nigro cincti; alæ cinereæ.

*Male.*—Black. Head and thorax minutely scabrous. Head yellow about the eyes. Antennæ linear, shorter than the thorax; scape yellow beneath. Prothorax bordered with yellow in front and on each side; the foreband interrupted. Mesothorax with an oblique yellow streak on each side of the scutum, and with a yellow spot on each side of the scutellum; calli at the base of the fore-wings yellow. Metathorax roughly scabrous. Petiole slender, a little shorter than the oval abdomen; the latter very much narrower than the thorax, and not more than half its length. Legs yellow. Hind-coxæ black. Hind-femora with many very minute teeth; tips black; a large black spot on each side, dilated on the inner side and extending to the tip. Anterior femora black at the base. Hind-tibiæ black at the base and towards the tips. Wings cinereous; veins black; ulna hardly half the length of the humerus; radius nearly as long as the ulna; cubitus very short.

Length of the body 3 lines; of the wings 5 lines.

Ega. In Mr. Smith's collection.

GENUS EPITRANUS.

*Epitranus impulsator.*

*Mas.*—Niger, gracilis; caput et thorax punctata, nitentia; caput non impressum, facie planâ perobliquâ; antennæ rufæ, sub filiformes, scapo longissimo; scutellum inerme; petiolus striatus, longissimus; abdomen ellipticum, subcompressum;

pedes obscurè rufi, femoribus posticis nigris dentatis, tibiis posticis unituberculatis; alæ cinereæ, angustæ.

*Male*.—Black, comparatively slender. Head and thorax largely punctured, but not dull nor pubescent as in nearly all the species of this family. Head not impressed in front; face smooth, flat, very oblique. Antennæ red, nearly filiform, inserted by the mouth, shorter than the thorax; scape about two-thirds of the length of the flagellum. Thorax slightly convex, with the usual structure; hind border of the prothorax reddish on each side; scutellum unarmed. Petiole linear, striated longitudinally, almost as long as the abdomen. Abdomen elliptical, slightly compressed, deeper than broad; first segment occupying five-sixths of the surface. Legs dark red; hind-coxæ and hind-femora mostly black, the former nearly as large as the latter, which are incrassated and have a short obtuse tooth at the base, and many extremely minute teeth; hind-tibiæ with a protuberance above, near the base. Wings cinereous, narrow; veins black; ulna almost three-fourths of the length of the humerus; radius and stigma obsolete; cubitus very short, forming a very acute angle with the costa.

Length of the body 4 lines; of the wings 6 lines.

Makassar, Celebes. Discovered by Mr. Wallace. In the British Museum.

*Epitranus observator.*

*Fæm.*—Niger, gracilis; caput et thorax punctata, nitentia; caput thorace paullo latius, facie rufescente perobliquâ; antennæ piceæ, filiformes, thorace breviores, scapo rufo; scutellum inerme; petiolus striatus, elongatus; abdomen ellipticum, breve, subtus rufescens; pedes rufi, femoribus posticis nigris dentatis, tibiis posticis unituberculatis; alæ cinereæ, angustæ.

*Female*.—Black, rather slender. Head and thorax largely punctured, but shining. Head a little broader than the thorax, not excavated in front; face reddish, extremely oblique. Antennæ piceous, linear, much shorter than the thorax; scape red, inserted by the mouth. Thorax with the usual structure; scutellum unarmed; metathorax almost horizontal. Petiole linear, striated longitudinally, almost half the length of the elliptical slightly compressed abdomen; the latter reddish beneath, much shorter than the thorax. Legs red; hind-femora black, much incrassated, with a short obtuse tooth at the base, and with many extremely minute teeth; hind-tibiæ with a protuberance above near the base. Wings cinereous, narrow; veins black; ulna a little shorter than

the humerus; radius and stigma obsolete; cubitus extremely short.

Length of the body  $3\frac{1}{2}$  lines; of the wings 5 lines.

Sierra Leone. Discovered by Mr. Foxcroft. In the British Museum.

This species and the Celebes *E. impulsator* have evidently a common origin, and probably one of them was transported in very recent times to the region now inhabited by the other. Their distinction as races or as sub-species cannot be determined until more specimens are procured from both localities.

*Epitranus ruptator.*

*Mas.*—Rufescente piceus; caput et thorax sub-punctata, subnitentia; facies perobliqua; antennæ rufæ, filiformes, thorace paullo breviores; thorax breviusculus, scutello inermi; petiolus longus, gracilis, sulcatus; abdomen ellipticum, clavatum; pedes obscure rufi, femoribus posticis dentatis; alæ sub-cinereæ.

*Male.*—Reddish-piceous. Head and thorax minutely punctured, slightly shining. Head hardly as broad as the thorax; face very oblique. Antennæ red, filiform, a little shorter than the thorax, inserted near the mouth. Thorax rather short, with the usual structure; scutellum unarmed. Petiole slender, linear, sulcated, about half the length of the thorax and somewhat shorter than the elliptical, slightly compressed, and very deep abdomen. Legs dull red, with the usual structure; hind-coxæ and hind-femora much incrassated, the latter armed beneath with several minute teeth. Wings slightly cinereous; veins black; ulna full half the length of the humerus; radius and cubitus extremely short.

Length of the body 3 lines; of the wings 5 lines.

Port Natal. Discovered by M. Gueinzus. In the British Museum.

Genus CHALCIS.

*Chalcis comitator.*

*Mas.*—Nigra, crassa; thorax densè punctatus; antennæ sub-filiformes, thorace breviores; scutellum inerme; metathorax scaber: abdomen ovatum, acutum, thorace non longius; pedes tibiis anticis supra, tibiis posterioribus apice genubusque albis, femoribus posticis dentatis; alæ cinereæ.

*Male.*—Black, broad, thick, with hoary pubescence. Head and thorax thickly punctured. Head impressed in front; face

not oblique. Antennæ stout, nearly filiform, shorter than the thorax. Thorax with the usual structure, unarmed except a protuberance behind the scutellum. Metathorax largely scabrous. Petiole extremely short. Abdomen oval, acute, narrower but not longer than the thorax. Legs with the usual structure; knees and tips of the tibiæ white; fore-tibiæ white above; hind-femora much incrassated, armed beneath with several minute teeth. Wings cinereous; veins black. Fore-wings with a brownish tinge towards the base; ulna hardly half the length of the humerus; radius nearly half the length of the ulna; cubitus extremely short.

Length of the body  $3\frac{1}{2}$  lines; of the wings 5 lines.

Mexico. Discovered by M. Sallé. In the British Museum.

*Chalcis pendator.*

*Mas.*—Nigra, robusta; caput et thorax sub-punctata; antennæ filiformes, thorace breviores; thorax callis pallidè flavis, scutello inermi, metathorace scabro; abdomen ellipticum, breve; pedes femoribus apice, coxis posticis subtus tarsisque flavis, tibiis flavis nigro fasciatis; alæ cinereæ.

*Male.*—Black, robust. Head and thorax minutely punctured. Antennæ thick, linear, shorter than the thorax. Thorax with the usual structure; scutellum unarmed; callus at the base of the fore-wings pale yellow; metathorax largely scabrous. Petiole extremely short. Abdomen elliptical, a little narrower and much shorter than the thorax. Femora with yellow tips; hind-coxæ yellow beneath; hind-femora incrassated, armed beneath with several minute teeth; tibiæ yellow, with a broad black band; tarsi yellow; fore-tarsi tawny. Wings cinereous; veins black; ulna hardly half the length of the humerus; radius shorter than the ulna; cubitus extremely short.

Length of the body 3 lines; of the wings 5 lines.

St. Domingo. Discovered by Mr. Tweedie. In the British Museum.

*Chalcis restituta.*

*Fæm.*—Nigra, crassa; caput et thorax sub-punctata; antennæ filiformes, thorace breviores; thorax callis albis, scutello bidentato, metathorace scabro; abdomen ellipticum, postice sub-attenuatum, thorace brevius; pedes rufi, femoribus apice tibiisque basi apiceque flavis; alæ cinereæ.

*Female.*—Black, thick. Head and thorax minutely punctured. Antennæ robust, linear, shorter than the thorax. Thorax with

the usual structure; scutellum bidentate; callus at the base of the fore-wings white; metathorax scabrous; petiole extremely short. Abdomen elliptical, slightly attenuated hindward, shorter but hardly narrower than the thorax. Legs red; femora with pale yellow tips; hind-femora much incrassated, armed beneath with many minute teeth; tibiæ pale yellow at the base and at the tips. Wings cinereous; veins black; ulna about one-third of the length of the humerus; radius less than half the length of the ulna; cubitus very short.

Length of the body 3 lines; of the wings 5 lines.

Jamaica. Discovered by Mr. Gosse. In the British Museum.

The less shining thorax, and the slightly shorter and broader abdomen are the only characters in which this species seems to differ from *C. Polycator* (*post*, p. 354).

*Chalcis implexa.*

*Mas.*—Nigra, crassa; caput et thorax sub-scabra; antennæ sub-clavatæ, thorace breviores; thorax flavescenti pubescens, scutello inermi, metathorace scabroso; abdomen longi-ellipticum, thorace vix longius, apicem versus flavescenti pubescens; pedes femoribus posticis apice flavo strigatis, tibiis posticis supra genubusque flavis; alæ anticæ basi sub-fuscescentes.

*Male.*—Black, broad, thick. Head and thorax minutely scabrous. Antennæ stout, sub-clavate, shorter than the thorax. Thorax with the usual structure, thinly covered with yellowish pubescence; scutellum unarmed; metathorax very largely scabrous. Petiole extremely short. Abdomen elongate, elliptical, narrower, but hardly longer, than the thorax; apical half thickly covered with yellowish pubescence. Knees yellow. Hind-femora much incrassated with a yellow apical streak, armed beneath with several small teeth; hind-tibiæ yellow above. Wings cinereous; veins black. Fore-wings with a brownish tinge towards the base; ulna about half the length of the humerus; radius full one-third of the length of the ulna; cubitus very short.

Length of the body  $4\frac{1}{2}$  lines; of the wings  $7\frac{1}{2}$  lines.

Ega. Discovered by Mr. Bates. In the British Museum.

*Chalcis decreta.*

*Fœm.*—Nigra; caput et thorax sub-punctata; facies perobliqua; antennæ crassæ, filiformes, thorace breviores; scutellum bidentatum; abdomen fusiforme, thorace longius, apice peracutum; pedes pallide flavi, femoribus supra coxisque nigris, tibiis posticis nigro fasciatis; alæ cinereæ.

*Female*.—Black. Head and thorax minutely punctured. Face very oblique. Antennæ thick, filiform, shorter than the thorax, Thorax with the usual structure; scutellum minutely bidentate. Petiole extremely short. Abdomen fusiform, slightly compressed, longer and narrower than the thorax, very acute at the tip. Legs pale yellow; coxæ black; anterior femora black above, except towards the tips; hind-coxæ yellow beneath; hind-femora black, much incrassated, yellow at the base and at the tips, armed beneath with one large, and with several small teeth; hind-tibiæ with a broad black band. Wings cinereous; veins black; ulna full half the length of the humerus; radius and cubitus very short.

Length of the body 3 lines; of the wings 5 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

*Chalcis separata.*

*Fœm.*—Nigra; caput et thorax subtilissimè punctata; antennæ sub-clavatæ, scapo flavo; scutellum inerme; petiolus brevissimus; abdomen basi ovatum, apice longissimè stylatum; pedes flavi; coxis nigris, femoribus anterioribus basi piceis, femoribus posticis nigris dentatis valdè incrassatis apice flavis, tibiis posticis piceo notatis; alæ sub-cinereæ.

*Female*.—Black, smooth, shining. Head and thorax very minutely punctured. Antennæ sub-clavate, shorter than the thorax; scape yellow. Thorax with the usual structure; scutellum unarmed. Petiole extremely short. Abdomen with the basal part oval, a little longer than the thorax; apical part compressed, slender, stylate, of equal depth except at the base, as long as the preceding part of the body. Legs yellow; coxæ black; anterior femora piceous at the base; hind-femora black, much incrassated, yellow towards the tips, armed beneath with very minute teeth; hind-tibiæ with a piceous mark in the middle. Wings slightly cinereous; veins black; ulna more than half the length of the humerus; radius and cubitus extremely short.

Length of the body 5 lines; of the wings 5 lines.

Ega. Discovered by Mr. Bates. In the British Museum.

*Chalcis concitator.*

*Mas.*—Nigra, crassa; caput et thorax sub-punctata; antennæ filiformes, thorace paullò breviores; thorax callis flavis, scutello bidentato, metathorace scabro; abdomen ellipticum,

thorace brevius, apicem versus pubescens; pedes flavi, femoribus posticis nigris basi flavo guttatis apice flavis; alæ cinereæ.

*Male*.—Black, thick. Head and thorax very minutely punctured. Antennæ stout, linear, a little shorter than the thorax. Thorax with the usual structure; scutellum bidentate; calli at the base of the fore-wings pale yellow. Metathorax scabrous. Petiole extremely short. Abdomen elliptical, shorter and narrower than the thorax, pubescent hindward. Legs yellow; coxæ black; hind-femora black, much incrassated, armed beneath with minute yellow-tipped teeth, with a yellow dot at the base beneath. Wings cinereous; veins black; ulna about half the length of the humerus; radius not more than one-fourth of the length of the ulna; cubitus very short.

Length of the body  $2\frac{1}{2}$  lines; of the wings 5 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

### *Chalcis Polycator*.

*Mas et Fœm*.—Nigra, robusta; caput et thorax densè punctata, capite excavato; antennæ sub-clavatæ, thorace breviores; thorax callis albis, scutello bidentato; abdomen ellipticum; pedes albo varii, femoribus tibiisque posticis tarsisque rufis; alæ cinereæ.

*Chalcis Polycator*, Walk. "The Entomologist," 218.

*Male and Female*.—Black, stout. Head and thorax thickly punctured. Head much excavated in front. Antennæ sub-clavate, robust, shorter than the thorax. Thorax with the usual structure; scutellum bidentate; callus at the base of the fore-wings white. Petiole extremely short. Abdomen elliptical, shorter than the thorax in the male, full as long as the thorax in the female, where it is slightly attenuated towards the acute tip. Tarsi red. Anterior femora black, with white tips; anterior tibiæ white at the base and at the tips. Hind-femora red, much incrassated, with white tips, armed beneath with several rather large teeth; hind-tibiæ red, white at the base and at the tips. Wings cinereous; veins black; ulna full half the length of the humerus in the male, less than half the length of the humerus in the female; radius and cubitus very short.

Length of the body  $2\frac{1}{2}$ —3 lines; of the wings 4—5 lines.

West and South Africa. In the British Museum.

The former description of this species is incomplete.

*Chalcis responsator.*

*Mas.*—Nigra; caput et thorax sub-punctata; antennæ filiformes, thorace breviores; thorax callis flavis, scutello bidentato, metathorace scabro; abdomen brevi-ellipticum; pedes flavi, femoribus anterioribus basi tibiisque posticis subtus coxisque nigris, femoribus posticis rufis, maculâ exteriore nigrâ guttâque apicali flavâ; alæ limpidae.

*Male.*—Black, thick. Head and thorax minutely punctured. Antennæ thick, linear, shorter than the thorax. Thorax with the usual structure; scutellum bidentate, bordered with cinereous pubescence; calli at the base of the fore-wings pale yellow; metathorax scabrous. Petiole extremely short. Abdomen short, elliptical, very highly arched, much shorter and a little narrower than the thorax; hind part with bands of cinereous pubescence. Legs pale yellow; anterior femora towards the base and coxæ black; hind-femora red, much incrassated, with a blackish spot on the outer side and with a yellow apical dot, armed beneath with several minute teeth; hind-tibiæ black beneath. Wings limpid; veins black; ulna a little less than half the length of the humerus; radius much shorter than the ulna; cubitus very short.

Length of the body  $2\frac{1}{2}$  lines; of the wings 5 lines.

North Hindostan. In the British Museum.

*Chalcis inclinator.*

*Mas.*—Nigra, crassa; caput et thorax densè punctata; antennæ filiformes, thorace breviores; thorax callis flavis, scutello bidentato, metathorace scabro; abdomen brevi-ellipticum; pedes flavi, coxis femoribusque nigris, his apice flavis; alæ cinereæ.

*Male.*—Black, robust. Head and thorax thickly and minutely punctured. Antennæ stout, linear, shorter than the thorax. Thorax with the usual structure; scutellum with two minute teeth; callus at the base of the fore-wings yellow; metathorax scabrous. Petiole extremely short. Abdomen short, elliptical, much shorter than the thorax. Legs yellow; coxæ and femora black; the latter with yellow tips; hind-femora much incrassated, with one large tooth near the base and with several minute teeth. Wings cinereous; veins black; ulna full half the length of the humerus; radius much less than half the length of the ulna; cubitus very short.

Length of the body 3 lines; of the wings 5 lines.

Sarawak, Borneo. Batchian. Hong Kong. Discovered by

Mr. Bowring. Aru Island. Discovered by Mr. Wallace. In the British Museum.

*Chalcis sociator.*

*Fœm.*—Nigra, crassa; caput et thorax punctata, subnitentia; antennæ sub-clavatæ, thorace breviores; thorax callis flavis, scutello inermi, metathorace scabro; abdomen ellipticum, thorace paullo brevius; pedes flavi, coxis femoribusque nigris, his apice flavis, tibiis nigro strigatis; alæ cinereæ.

*Female.*—Black, robust. Head and thorax punctured, slightly shining. Antennæ stout, sub-clavate, shorter than the thorax. Thorax with the usual structure; scutellum unarmed; calli at the base of the fore-wings pale yellow; metathorax scabrous. Petiole extremely short. Abdomen elliptical, a little shorter but hardly narrower than the thorax. Legs yellow; coxæ and femora black, the latter with yellow tips; tibiæ streaked above with black: hind-femora much incrassated, armed beneath with many minute teeth. Wings cinereous; veins black; ulna about half the length of the humerus; radius much less than half the length of the ulna; cubitus very short.

Length of the body 3 lines; of the wings 5 lines.

Sarawak, Borneo. Discovered by Mr. Wallace. In the British Museum.

*Chalcis nitator.*

*Mas.*—Nigra, crassa; caput et thorax subtilissimè punctata; thorax callis flavis, scutello bidentato, metathorace scabro; abdomen brevissimum, apicem versus rufescens; pedes flavi, femoribus anterioribus basi femoribusque posticis nigris, his apice flavis; alæ limpidæ.

*Male.*—Black, thick. Head and thorax very minutely punctured. Antennæ wanting. Thorax with the usual structure; scutellum bidentate; calli at the base of the fore-wings pale yellow; metathorax scabrous. Petiole extremely short. Abdomen very short, elliptical, very highly arched, dark red towards the tip, much shorter but hardly narrower than the thorax. Legs pale yellow; anterior femora at the base and coxæ black; hind-femora black, much incrassated, yellow at the tips, armed beneath with minute teeth. Wings limpid; veins black; ulna about half the length of the humerus; radius much shorter than the ulna; cubitus very short.

Length of the body  $2\frac{1}{2}$  lines; of the wings 5 lines.

North Australia. Discovered by Mr. Elsey. In the British Museum.

## Genus HALTICELLA.

*Halticella ensator.*

*Mas et Fœm.*—Nigra; caput et thorax scabrosa; caput valde impressum; antennæ thorace non breviores; calli rufescenti-picei; scutellum inerme; metathorax bidentatus; petiolus brevissimus; abdomen rufescenti-piceum; femora postica incrassata, octo-dentata; alæ anticæ dimidio basali fuscescente. *Mas.*—Abdomen longi-ellipticum, thorace brevius. *Fœm.*—Abdomen thorace multo longius, apicem versus nigrum, stylatum.

*Female.*—Black. Head and thorax largely scabrous. Head deeply impressed in front for the reception of the scape of the antennæ; the latter hardly thicker towards their tip, as long as the thorax. Prothorax sub-quadrata, more than twice broader than long. Mesothorax with the calli at the base of the fore-wings reddish-piceous; hind border of the scutellum prominent; metathorax bidentate. Petiole very short. Abdomen much longer than the thorax; basal part elongate-oval, reddish-piceous; apical part stylate, compressed, of equal depth, shorter than the preceding part. Hind-legs of the usual form; hind-femora armed beneath with eight teeth of equal size. Wings cinereous; veins black. Fore-wings brownish from the base to the cubitus; ulna about half the length of the humerus; radius very short, longer than the cubitus.

Length of the body 7 lines; of the wings 9 lines.

*Male.*—Antennæ slender, filiform. Abdomen elongate-elliptical, shorter and a little narrower than the thorax.

Length of the body 4 lines.

Sarawak, Borneo. Discovered by Mr. Wallace. In the British Museum.

*Halticella ducator.*

*Fœm.*—Nigra; caput et thorax scabrosa; caput impressum, facie perobliquâ; antennæ filiformes, thorace paullo longiores; scutellum inerme; metathorax bidentatus; petiolus brevissimus; abdomen thorace multo longius, basi fusiforme rufescenti-piceum, apice nigrum stylatum; femora postica incrassata, decem-dentata; alæ cinereæ.

*Female.*—Black. Head and thorax scabrous. Head impressed in front; face very oblique. Antennæ filiform, a little longer than the thorax. Thorax like that of *H. ensator* in structure. Petiole very short. Abdomen very much longer than the thorax; basal

part fusiform, slightly compressed, reddish-piceous; apical part stylate, compressed, of equal breadth, a little shorter than the preceding part. Hind-legs of the usual form; hind-femora armed beneath with ten teeth of nearly equal size. Wings cinereous; veins black. Fore-wings with the ulna about half the length of the humerus; radius and cubitus very short, of equal length.

Length of the body 9 lines; of the wings 10 lines.

Amboina, Ceram. Discovered by Mr. Wallace. In the British Museum.

*Halticella properator.*

*Fœm.*—Nigra; caput et thorax scabrosa; caput impressum, facie perobliquâ; scutellum inerme; metathorax bidentatus; petiolus brevissimus; abdomen thorace valdè longius, basi longi-ellipticum, apice stylatum punctatum; tarsi picei; femora postica incrassata, septem-dentata; alæ fuscescenti-cinereæ.

*Female.*—Black. Head and thorax scabrous. Head and thorax in structure like those of *H. ducator* (*sup.* p. 357), but with the face more oblique. Petiole very short. Abdomen very much longer than the thorax; basal part elongate-elliptical; apical part stylate, compressed, punctured along most of the length, very slightly decreasing in depth to the tip, a little longer than the preceding part. Tarsi piceous. Hind-legs of the usual form; femora armed beneath with seven minute teeth. Wings brownish cinereous; veins black; ulna about half the length of the humerus; radius and cubitus very short.

Length of the body 5 lines; of the wings 8 lines.

Java. Discovered by Mr. Bowring. In the British Museum.

*Halticella tentator.*

*Mas* et *Fœm.*—Nigra; caput et thorax scabrosa; caput valdè impressum; antennæ filiformes; calli rufi; scutellum inerme; metathorax bidentatus; petiolus brevissimus; abdomen rufum; femora postica incrassata, dentata; alæ anticæ cinereæ, apud costam luridæ. *Mas.*—Abdomen fusiforme, thorace paullò brevius. *Fœm.*—Abdomen thorace valdè longius, basi fusiforme, apicem versus stylatum.

*Female.*—Black. Head and thorax largely scabrous, like those of *H. ensator* (*sup.* p. 357) in structure. Antennæ filiform; calli at the base of the fore-wings red. Petiole very short. Abdomen very much longer than the thorax; basal part fusiform, red; apical part stylate, compressed, of equal depth, much shorter than the

basal part. Hind-legs of the usual form; hind-femora armed beneath with minute teeth. Wings cinereous; veins black. Forewings with a lurid tinge along the costa; ulna less than half the length of the humerus; radius and cubitus very short.

Length of the body 6 lines; of the wings 9 lines.

*Male*.—Antennæ longer than those of the female. Abdomen red, fusiform, a little shorter than the thorax.

Length of the body 4 lines; of the wings 7 lines.

Singapore. Discovered by Mr. Wallace. In the British Museum.

*Halticella signator.*

*Fœm.*—Nigra; caput et thorax scabrosa; caput valdè impressum, facie obliquâ; antennæ filiformes, thorace non breviores; scutellum inerme; metathorax bidentatus; petiolus brevissimus; abdomen thorace multò longius, basi longi-ellipticum, apice stylatum punctatum; tarsi obscurè rufescentes; femora postica incrassata, quadridentata; alæ cinereæ, basi apud costam nigricantes.

*Female*.—Black. Head and thorax scabrous, in structure like those of *H. ensator* (*sup.* p. 357); face oblique. Antennæ filiform, as long as the thorax. Petiole very short. Abdomen much longer than the thorax; basal part elongate-elliptical; apical part stylate, compressed, punctured, a little deeper at the tip, much shorter than the basal part. Tarsi dark reddish. Hind-legs of the usual form; hind-femora much incrassated, armed with four large teeth. Wings cinereous, blackish along the costa towards the base; veins black; ulna about half the length of the humerus; radius and cubitus very short.

Length of the body  $5\frac{1}{2}$  lines; of the wings 9 lines.

Java. Discovered by Mr. Bowring. In the British Museum.

*Halticella motator.*

*Fœm.*—Nigra; caput et thorax scabrosa; caput valdè impressum, facie perobliquâ; antennæ filiformes, thorace non breviores; scutellum inerme; metathorax bidentatus; petiolus brevissimus; abdomen thorace valdè longius, basi longi-ellipticum, apice stylatum; femora postica incrassata, dentata; alæ cinereæ, dimidio basali nigricante.

*Female*.—Black. Head and thorax finely scabrous, in structure like those of *H. ensator* (*sup.* p. 357); face very oblique. Antennæ filiform, as long as the thorax. Petiole very short. Abdomen much longer than the thorax; basal part elongate-elliptical; apical part

stylate, compressed, very little deeper at the tip, much shorter than the preceding part. Hind-legs of the usual form; hind-femora much incrassated, their teeth successively decreasing in size towards the tips. Wings cinereous; veins black. Fore-wings blackish from the base to the cubitus; ulna more than half the length of the humerus; radius and cubitus very short. Hind-wings blackish for full two-thirds of the length from the base.

Length of the body 6 lines; of the wings 10 lines.

Sarawak, Borneo. Discovered by Mr. Wallace. In the British Museum.

*Halticella gladiator.*

*Fœm.*—Nigra, sat gracilis; caput et thorax scabrosa; caput valdè impressum, facie perobliquâ; antennæ graciles, filiformes, thorace non longiores; scutellum inerme; abdomen thorace longius, basi rufum longi-ellipticum, apice stylatum; femora postica dentata; tarsi rufi; alæ fuscescente cinereæ.

*Female.*—Black, rather narrow. Head and thorax largely scabrous. Head much impressed in front; face very oblique. Antennæ slender, filiform, inserted near the mouth, as long as the thorax. Thorax with the usual structure; scutellum unarmed. Petiole extremely short. Abdomen longer than the thorax; basal part elongate-elliptical; its first segment occupying more than half the surface, red towards the base; all the following segments very short, with cinereous pubescence; apical part forming a lanceolate style, full half the length of the preceding part. Tarsi and anterior knees red; hind-femora much incrassated, armed beneath with eight very minute teeth. Wings brownish-cinereous; veins black; ulna hardly one-third of the length of the humerus; radius extremely short; cubitus very little longer than the radius.

Length of the body 4 lines; of the wings 6 lines.

Sarawak, Borneo. Discovered by Mr. Wallace. In the British Museum.

*Halticella declarator.*

*Mas.*—Nigra, crassa; caput et thorax scabra; caput impressum, facie sub-obliquâ; antennæ graciles, filiformes, thorace longiores; scutellum inerme; abdomen ellipticum, thorace non longius; femora postica dentata; alæ cinereæ, dimidio basali nigricante fusco.

*Male.*—Black. Head and thorax scabrous. Head impressed in front; face slightly oblique. Antennæ slender, filiform, longer than the thorax, red for full one-third of the length from the tips. Thorax pubescent, with the usual structure, unarmed, with the

exception of a protuberance behind the scutellum. Petiole extremely short. Abdomen elliptical, not longer than the thorax. Hind-legs with the usual structure; femora much incrassated, armed beneath with several small teeth. Wings cinereous, blackish-brown for half the length from the base; veins black; ulna full half the length of the humerus; radius and cubitus very short.

Length of the body 5 lines; of the wings 8 lines.

Ega. Discovered by Mr. Bates. In the British Museum.

*Halticella basalis.*

*Fœm.*—Nigra; caput et thorax scabrosa; caput impressum, facie obliquâ; antennæ apices versus sub-crassiores; scutellum inerme; metathorax bidentatus; petiolus brevissimus; abdomen thorace multò longius, basi rufescens longi-ovatum, apice stylatum; tarsi rufi; femora postica incrassata, sex-dentata; alæ cinereæ.

*Female.*—Black. Head and thorax largely scabrous. Front impressed as usual; face oblique. Antennæ a little thicker towards the tips. Thorax with the usual structure. Petiole very short. Abdomen much longer than the thorax; basal part elongate-oval, dark red towards the petiole, with hoary pubescence on the hind borders of the segments on each side; apical part compressed, stylate, hardly deeper at the tip, much shorter than the basal part. Tarsi red. Hind-legs of the usual form; hind-femora incrassated, armed beneath with six moderate-sized teeth. Wings cinereous; veins black; ulna less than half the length of the humerus; radius and cubitus very short.

Length of the body 4—5 lines; of the wings 6—8 lines.

Para. Discovered by Mr. Bates. In the British Museum.

*Halticella liberator.*

*Fœm.*—Nigra; caput et thorax subtilissimè punctata; caput valdè impressum, facie perobliquâ; antennæ graciles, filiformes, thorace paullò longiores; scutellum bispinosum; petiolus brevissimus; abdomen thorace vix longius, basi ovatum, apice stylatum; femora postica valdè incrassata, non dentata; alæ anticæ fasciis duabus abbreviatis nigricantibus.

*Female.*—Black. Head and thorax very minutely punctured. Head deeply impressed in front; face very oblique. Antennæ slender, filiform, seated near the mouth, a little longer than the thorax. Thorax of the usual structure; scutellum armed with two short ascending spines. Petiole extremely short. Abdomen

oval, hardly longer than the thorax; 2nd segment about half the length of the 1st; 3rd segment less than half the length of the 2nd; the following segments extremely short; apical part forming a compressed lanceolate style, about one-fourth of the length of the preceding part. Hind-femora much incrassated, slightly notched but not dentate beneath; hind-tibiæ curved, compressed, slightly dilated. Wings cinereous. Fore-wings with two blackish, hindward-shortened bands; the 2nd full twice the breadth of the 1st; veins black; ulna about one-fourth of the length of the humerus; radius and cubitus nearly obsolete.

Length of the body 4 lines; of the wings 5 lines.

Port Natal. Discovered by M. Gueinzus. In the British Museum.

*Halticella proctotuperator.*

*Fœm.*—Nigra; caput et thorax scabrosa; caput valdè impressum, facie perobliquâ; antennæ sub-filiformes, thorace non longiores; thorax callis rufis, scutello inermi; abdomen rufescente-nigrum, basi longi-ovatum, apice stylatum; femora postica dentata; tarsi rufi; alæ cinereæ, apud medium sub-fuscescentes.

*Female.*—Black, with cinereous tomentum. Head and thorax scabrous. Head deeply impressed; face very oblique. Antennæ robust, almost filiform, not longer than the thorax. Calli at the base of the fore-wings red. Scutellum unarmed. Petiole very short. Abdomen reddish-black, much longer than the thorax, elongate-oval, with the exception of the apical part; the latter stylate, compressed, of equal depth, much shorter than the preceding part. Hind-femora much incrassated, armed beneath with minute teeth. Tarsi red. Wings cinereous, with a brown tinge about the middle; veins black; ulna about half the length of the humerus; radius and cubitus very short.

Length of the body 5 lines; of the wings 7 lines.

This species is closely allied to *H. tentator* (*ante*, p. 358), but may be distinguished by the shorter stylate part of the abdomen.

Singapore. Discovered by Mr. Wallace. In the collection of Mr. Saunders.

*Halticella lanceolator.*

*Fœm.*—Nigra, sat gracilis; caput et thorax scabra; caput valdè impressum, facie perobliquâ; antennæ filiformes, sat graciles, thorace non longiores; thorax callis nigris, scutello inermi; abdomen basi rufum longi-ovatum, apice stylatum; femora postica dentata; tarsi rufi; alæ fuscescente cinereæ.

*Female*.—Black, rather slender. Head and thorax scabrous. Head deeply impressed; face very oblique. Antennæ filiform, rather slender, not longer than the thorax. Thorax with black calli at the base of the fore-wings; scutellum prominent, unarmed. Petiole very short. Abdomen red towards the base, very much longer than the thorax, elongate-oval with the exception of the stylate part; the latter compressed, of nearly equal depth, nearly as long as the preceding part. Hind-femora much incrassated, armed beneath with several teeth of moderate size. Tarsi red. Wings brownish-cinereous; veins black; ulna full half the length of the humerus; radius and cubitus very short.

Length of the body 4 lines; of the wings 6 lines.

Aru, Batchian, and Kaisan. Discovered by Mr. Wallace. In the collection of Mr. Saunders.

*Halticella minator.*

*Mas*.—Nigra, sat gracilis; caput et thorax sub-punctata; caput valdè impressum, facie perobliquâ; antennæ robustæ, filiformes, thorace non breviores; scutellum bidentatum; metathorax scaber; abdomen ellipticum, thorace brevius; femora postica non dentata; alæ cinereæ.

*Male*.—Black, rather slender. Head and thorax minutely punctured. Head much impressed in front; face very oblique. Antennæ stout, linear, inserted by the mouth, full as long as the thorax. Thorax with the usual structure; scutellum bidentate; metathorax scabrous. Petiole extremely short. Abdomen elliptical, slightly convex, shorter and a little narrower than the thorax. Legs wholly black; hind-femora incrassated, unarmed. Wings cinereous; veins black; ulna about one-fifth of the length of the humerus; radius and cubitus extremely short.

Length of the body  $2\frac{1}{2}$  lines; of the wings 4 lines.

Port Natal. Discovered by M. Gueinzus. In the British Museum.

*Halticella versator.*

*Fcem*.—Nigra, gracilis, subtus rufescens; caput et thorax scabrosa; facies perobliqua; antennæ graciles, filiformes, thorace non longiores; thorax rufo varius, scutello inermi; petiolus brevissimus; abdomen thorace paullò longius, basi fusiforme, apice rufum lanceolatum; pedes rufi, femoribus nigris rufo variis, femoribus posticis incrassatis dentatis; alæ cinereæ.

*Female*.—Black, slender and but slightly convex with regard to

the tribe, mostly dark red beneath. Head and thorax roughly scabrous; face very oblique. Antennæ slender, filiform, not longer than the thorax. Thorax with the usual structure, red in front; scutellum unarmed. Petiole extremely short. Abdomen with the basal part fusiform, a little narrower and longer than the thorax; apical part red, slender, lanceolate, about half the length of the preceding part. Legs red; femora mostly black; hind-femora much incrassated, armed beneath with several rather large teeth. Wings cinereous; veins black; ulna less than half the length of the humerus; radius and cubitus very short.

Length of the body  $3\frac{1}{2}$  lines; of the wings  $4\frac{1}{2}$  lines.

South Africa. In the British Museum.

*Halticella spinator.*

*Fœm.*—Nigra, crassa; caput et thorax densissimè punctata; caput valdè impressum, facie perobliquâ; antennæ filiformes, thorace multò breviores; scutellum peracutum, valdè productum; metathorax scaber; abdomen ovatum, peracutum, thorace paullò brevius; femora postica non dentata; alæ anticæ obscurè cinereæ, liturâ apud costam nigricante.

*Female.*—Black, robust, with cinereous tomentum. Head and thorax very thickly punctured. Head very deeply impressed; face extremely oblique. Antennæ filiform, inserted near the mouth, much shorter than the thorax. Scutellum prolonged into a stout very acute spine, extending over the basal part of the abdomen. Metathorax scabrous. Petiole extremely short. Abdomen oval, very acute, a little narrower and shorter than the thorax. Hind-femora incrassated, not dentate; hind-tibiæ curved, slightly dilated. Wings dark cinereous; veins black. Fore-wings with a blackish mark by the ulna; the latter less than one-fourth of the length of the humerus; radius very slender, a little longer than the ulna; cubitus extremely short.

Length of the body 4 lines; of the wings 7 lines.

Singapore. Discovered by Mr. Wallace. In Mr. Saunders' collection.

*Halticella æquator.*

*Fœm.*—Nigra; caput et thorax scitissimè punctata; caput valdè impressum, facie perobliquâ; antennæ filiformes, thorace paullò breviores; scutellum bidentatum; metathorax scaber; abdomen fusiforme, thorace non longius; femora postica non dentata; alæ obscurè cinereæ.

*Female.*—Black. Head and thorax very finely punctured.

Head very deeply impressed; face extremely oblique. Antennæ filiform, inserted by the mouth, a little shorter than the thorax. Scutellum prominent, bidentate. Metathorax scabrous. Petiole extremely short. Abdomen fusiform, acute, hardly compressed, with cinereous tomentum towards the tip, a little narrower but not longer than the thorax. Hind-femora incrassated, not dentate; hind-tibiæ slightly dilated and curved. Wings dark cinereous; veins black; ulna not more than one-sixth of the length of the humerus; radius and cubitus very short.

Length of the body 3 lines; of the wings  $4\frac{1}{2}$  lines.

Makassar, Celebes. Discovered by Mr. Wallace. In Mr. Saunders' collection.

*Halticella moderator.*

*Fœm.*—Nigra, sat gracilis; caput et thorax subtilissimè punctata; caput impressum, facie perobliquâ; antennæ graciles, sub-clavatæ, thorace ferè breviores; scutellum inerme; abdomen longi-ovatum, subtus apiceque rufum, thorace non longius; pedes rufi, femoribus posticis nigris dentatis; alæ cinereæ.

*Female.*—Black, rather narrow. Head and thorax very minutely punctured. Head impressed in front; face very oblique. Antennæ slender, sub-clavate, inserted near the mouth, hardly as long as the thorax. Thorax with the usual structure; scutellum unarmed; metathorax hardly oblique. Petiole extremely short. Abdomen elongate-oval, not longer than the thorax, red beneath and at the tip, which is acute and slightly ascending. Legs red; coxæ and hind-femora black, the latter much incrassated, armed beneath with several minute teeth. Wings cinereous; veins black; ulna not more than one-third of the length of the humerus; radius and cubitus extremely short.

Length of the body  $2\frac{1}{2}$  lines; of the wings 4 lines.

Algeria. In the British Museum.

*Halticella fabricator.*

*Fœm.*—Nigra; caput et thorax subtilissimè punctata; caput valdè impressum; antennæ graciles, filiformes, thorace non longiores; thorax callis rufis, scutello inermi; abdomen longi-ovatum, subtus rufum, apice attenuatum, thorace paullò longius; pedes rufi, femoribus posticis unidentatis; alæ cinereæ, breves.

*Female.*—Black. Head and thorax very minutely punctured. Head much impressed in front. Antennæ slender, filiform, in-

served by the mouth, not longer than the thorax. Thorax with the usual structure; scutellum unarmed; calli at the base of the fore-wings red. Petiole extremely short. Abdomen elongate-oval, attenuated towards the acute tip, red beneath, a little longer and narrower than the thorax; first segment occupying about half the surface; the following segments much narrower above than on each side. Legs red, of the usual structure; hind-femora incrassated, with a very obtuse tooth near the tip beneath. Wings cinereous, short; veins black. Fore-wings clouded with brown in the disk; ulna hardly one-fourth of the length of the humerus; radius obsolete; cubitus very short.

Length of the body  $2\frac{1}{2}$  lines; of the wings 3 lines.

Adelaide. In the British Museum.

*Halticella simplex.*

*Fœm.*—Nigra, sat gracilis; caput et thorax subtilissimè punctata; caput impressum, facie perobliquâ; antennæ graciles, sub-clavatæ, thorace vix breviores; scutellum inerme; abdomen longi-ovatum, subtus apiceque rufum, thorace non longius; pedes rufi, femoribus posticis nigris, dentatis; alæ cinereæ.

*Female.*—Black, very closely allied to *H. fabricator* (*sup.* p. 365). Head and thorax very minutely punctured. Head much impressed in front. Antennæ red, slender, filiform, inserted by the mouth, not longer than the thorax, blackish in the middle part. Thorax with the usual structure; scutellum unarmed; calli at the base of the fore-wings red. Petiole extremely short. Abdomen elongate-oval, attenuated towards the acute tip, red beneath and at the tip, a little longer and narrower than the thorax. Legs red, of the usual structure; femora mostly black; hind-femora incrassated, with a very obtuse tooth near the base beneath. Wings cinereous, short; veins black. Fore-wings slightly clouded with brown in the disk; ulna hardly one-fourth of the length of the humerus; radius obsolete; cubitus extremely short.

Length of the body  $2\frac{3}{4}$  lines; of the wings  $3\frac{1}{2}$  lines.

Sierra Leone. Discovered by Mr. Foxcroft. In the British Museum.

*Halticella dubitator.*

*Fœm.*—Nigra, sat gracilis; caput et thorax subtilissimè punctata; caput thorace paullò latius, facie perobliquâ; antennæ clavatæ, thorace paullò longiores; scutellum valdè productum, apice acutum; abdomen fusiforme, thorace non longius;

pedes rufi, femoribus posticis nigris, non dentatis; alæ anticæ cinereæ, guttâ costali fuscescente.

*Female*.—Black, rather slender. Head and thorax very minutely punctured. Head a little broader than the thorax; face very oblique. Antennæ stout, clavate, a little longer than the thorax. Scutellum produced into a spine and extending over the metathorax. Petiole extremely short and stout, so that the abdomen appears to be subsessile. Abdomen fusiform, more slender, but not longer than the thorax. Legs red; hind-femora black, incrassated, not armed; hind-tibiæ robust, hardly curved. Wings cinereous; veins black. Fore-wings with a diffuse brownish dot adjoining the ulna; ulna not one-fourth of the length of the humerus; radius and cubitus extremely short.

Length of the body  $2\frac{1}{2}$  lines; of the wings  $3\frac{1}{2}$  lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

*Halticella remotor.*

*Fœm.*—Nigra; caput et thorax subtilissimè punctata; caput valdè excavatum, facie perobliquâ; antennæ filiformes, thorace vix longiores; scutellum productum, bifurcatum; metathorax scaber; abdomen fusiforme, apice attenuatum peracutum, thorace vix longius; femora postica non dentata; alæ cinereæ, nigricante nebulosæ.

*Female*.—Black. Head and thorax very minutely punctured, the former and the sutures of the latter with silvery-whitish tomentum. Head very deeply excavated; face extremely oblique. Antennæ linear, hardly longer than the thorax. Thorax with the usual structure; scutellum produced into a bifurcate spine, whose upper division is longer than the lower one; metathorax scabrous. Petiole extremely short. Abdomen fusiform, attenuated towards the very acute tip, narrower but hardly longer than the thorax. Hind-femora incrassated, unarmed; hind tibiæ slightly curved and dilated. Wings cinereous, clouded with blackish-cinereous; veins black. Fore-wings with a quadrate black spot adjoining the ulna; the latter about one-fifth of the length of the humerus; radius and cubitus obsolete.

Length of the body  $3\frac{1}{2}$  lines; of the wings 6 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

*Halticella figurator.*

*Mas.*—Nigra, sat gracilis; caput et thorax subtilissimè punctata; caput valdè impressum, facie perobliquâ; antennæ

filiiformes, thorace paullò breviores; scutellum productum, acutum; metathorax scaber; abdomen ellipticum, thorace multò brevius; femora postica non dentata; alæ cinereæ.

*Male*.—Black, comparatively slender. Head and thorax very minutely punctured. Head much impressed in front; face very oblique. Antennæ linear, inserted by the mouth, a little shorter than the thorax. Thorax with the usual structure; scutellum produced into a short spine; metathorax scabrous. Petiole very short. Abdomen elliptical, a little narrower and much shorter than the thorax. Legs wholly black; hind-femora much incrassated, unarmed. Wings cinereous; veins black; ulna less than one-fourth of the length of the humerus; radius obsolete; cubitus extremely short.

Length of the body  $1\frac{1}{2}$  line; of the wings 2 lines.

Gambia. Discovered by Mr. Mackenzie Skues. In the British Museum.

*Halticella sulcator.*

*Fœm.*—Nigra, sat gracilis; caput et thorax subtilissimè punctata; caput non impressum, facie perobliquâ; antennæ filiiformes, thorace paullò longiores; scutellum inerme; metathorax brevissimus; abdomen fusiforme, thorace paullò longius; femora postica non dentata; alæ anticæ cinereæ, nigricante bifasciatæ.

*Female*.—Black, comparatively slender. Head and thorax very minutely punctured. Head not impressed in front; face very oblique. Antennæ linear, inserted by the mouth, a little longer than the thorax. Thorax with the usual structure; scutellum not produced nor armed; metathorax very short. Petiole extremely short. Abdomen fusiform, a little longer but not narrower than the thorax. Legs wholly black; hind-femora incrassated, unarmed. Wings cinereous; veins black. Fore-wings with two blackish bands; ulna about one-fourth of the length of the humerus; radius obsolete; cubitus extremely short.

Length of the body  $1\frac{3}{4}$  line; of the wings 2 lines.

China. Discovered by Mr. Laye. In the British Museum.

*Halticella finator.*

*Fœm.*—Nigra; caput et thorax scabrosa; caput valdè impressum, facie perobliquâ; antennæ clavatæ, thorace breviores; thoracis calli flavescenti-albi; scutellum inerme; petiolus brevissimus; abdomen longi-ovatum, thorace vix longius, apice acutum; pedes rufi, tarsi flavescenti-albis,

coxis femoribusque anterioribus nigris, his apice flavescenti-albis, tibiis basi flavescenti-albis, femoribus posticis incrassatis, dentatis, apice flavescenti-albis ; alæ cinereæ.

*Female*.—Black. Head and thorax largely scabrous. Head deeply impressed in front ; face very oblique. Antennæ clavate, shorter than the thorax. Thorax with the usual structure ; scutellum unarmed, with a sharply defined edge ; callus at the base of the fore-wings yellowish-white. Petiole extremely short. Abdomen elongate-oval, a little narrower but hardly longer than the thorax, somewhat attenuated towards the tip, which is acute. Legs red ; tarsi yellowish-white. Anterior legs with black coxæ and femora, the latter yellowish-white towards the tips, fore-tibiæ yellowish-white at the base ; middle tibiæ black, yellowish-white at the base and at the tips. Hind-femora much incrassated, with yellowish-white tips, armed beneath with many very minute teeth ; hind-tibiæ piceous, with yellowish-white tips and with a dot of the same hue at the base. Wings cinereous ; veins black ; ulna about half the length of the humerus ; cubitus and radius very short.

Length of the body  $2\frac{1}{2}$  lines ; of the wings 4 lines.

Hong Kong. Discovered by Mr. Bowring. In the British Museum.

*Halticella indignator.*

*Fæm.*—Nigra, crassa ; caput et thorax subtilè punctata ; antennæ robustæ, thorace breviores ; scutellum inerme ; metathorax scaber ; abdomen ovatum, thorace brevius ; pedes rufi, femoribus anterioribus nigris apice rufis, femoribus posticis dentatis ; alæ cinereæ.

*Female*.—Black. Head and thorax minutely punctured. Antennæ robust, shorter than the thorax. Thorax with the usual structure ; scutellum unarmed ; metathorax scabrous. Petiole extremely short. Abdomen oval, shorter than the thorax. Legs red ; coxæ and anterior femora black ; the latter with red tips ; hind-femora much incrassated, armed beneath with several minute teeth. Wings cinereous ; veins black ; ulna less than half the length of the humerus ; radius and cubitus very short.

Length of the body 2 lines ; of the wings 4 lines.

Tasmania. Discovered by Mr. A. J. Smith. In the British Museum.

*Halticella internata.*

*Mas.*—Nigra ; caput et thorax subtilè punctata ; caput valdè impressum, facie perobliquâ ; antennæ subclavatæ, thorace paullò breviores ; scutellum inerme ; metathorax scaber ;

abdomen ellipticum, thorace multò brevius; pedes femoribus posticis dentatis, genubus tarsisque pallidè rufescentibus; alæ cinereæ.

*Male*.—Black. Head and thorax minutely punctured. Head much impressed in front; face very oblique. Antennæ stout, sub-clavate, inserted near the mouth, a little shorter than the thorax. Thorax with the usual structure; scutellum unarmed; metathorax scabrous. Petiole extremely short. Abdomen elliptical, narrower and much shorter than the thorax. Knees and tarsi pale-reddish; hind-femora armed beneath with some minute teeth. Wings cinereous; veins black; ulna about half the length of the humerus; radius and cubitus very short, the former a little longer than the latter.

Length of the body  $1\frac{2}{3}$  line; of the wings  $3\frac{1}{3}$  lines.

Tasmania. Discovered by Mr. A. J. Smith. In the British Museum.

## SECT. II.

### Genus SOSXETRA.

*Fœm*.—Corpus sat robustum. Caput et thorax punctata, sub-pubescentia. Caput brevissimum, thoracis latitudine; facies striata, sub-depressa. Mandibulæ dentatæ. Palpi breves. Antennæ 9-articulatæ, filiformes, fronte insertæ; articulus 1<sup>us</sup> subclavatus, subcompressus; 2<sup>us</sup> brevissimus; 3<sup>us</sup> et sequentes lineares, subæquales; 9<sup>us</sup> apice conicus. Prothorax subquadratus, transversus. Mesothorax brevis; parapsidum suturæ conspicuæ; paraptera et epimera magna; scutellum vix bidentatum. Metathorax bene determinatus. Abdomen læve, valdè compressum, thorace non longius; segmenta antice contracta. Pedes læves, simplices, breviusculi; femora et tibiæ compressa, subdilatata; tibiæ intermedie valdè dilatatæ. Alæ anticæ latæ, non longæ.

*Female*.—Body moderately stout. Head and thorax punctured, slightly pubescent. Head vertical, very short, as broad as the thorax; face slightly depressed, with striæ converging towards the mouth; mandibles dentate; palpi short. Antennæ filiform, 9-jointed, seated on the front, less than twice the length of the breadth of the head; scape slightly clavate and compressed, with a minute globular protuberance on the underside near its tip; 2nd joint very short; flagellum pubescent, slightly tapering, composed of seven linear joints, which are nearly equal in length; 9th conical at the tip. Thorax convex. Prothorax sub-quadrate, more than twice broader than long. Mesothorax short; sutures of the parapsides distinct; paraptera and epimera large; scutel-

lum very minutely bidentate. Metathorax nearly vertical, well developed. Abdomen smooth, much compressed, not longer than the thorax, in structure like that of *Cynips*; segments contracted towards the fore-part of the dorsum. Legs smooth, simple, rather short; femora and tibiæ compressed, unarmed, slightly dilated; middle tibiæ much dilated exteriorly; joints of the tarsi successively decreasing in length to the 5th; ungues and onychia very small. Fore-wings broad, not long; humerus extending at some distance from the costa; ulna about one-fifth of the length of the humerus; radius about twice the length of the ulna; cubitus somewhat shorter than the ulna.

This is a very remarkable genus. It partakes of the characters of the *Chalcidites* and of the *Cynipites*, and seems to differ from them both as much as they do from each other. It agrees with the *Chalcidites* in the structure of the wing-veins, and may be considered as the type of a new family of that tribe.

*Sosxetra transversa.*

*Fœm.*—Flavescente fulva; caput nigrum, lituris anticis flavis; prothorax lineis duabus transversis nigris, 1a interrupta, 2a abbreviata; scuto linea nigra; tibiæ posteriores ex parte nigricantes; alæ cinereæ, venis fulvis lurido marginatis.

*Female.*—Yellowish tawny. Head black, yellowish about the base of the antennæ and about the eyes in front and towards the mouth. Prothorax with two transverse black lines; the 1st widely interrupted, the 2nd on the hind border, abbreviated on each side. Scutum with a longitudinal black line. Middle tibiæ blackish at the tips; hind-tibiæ blackish except at the base. Wings cinereous. Fore-wings with a lurid tinge about the veins, which are tawny.

Length of the body 4 lines; of the wings 7 lines.

*Ega.* Discovered by Mr. Bates. In the British Museum.

Genus SMIERA.

*Smiera transitiva.*

*Fœm.*—Lutea; thoracis discus niger luteo fasciatus et bimaculatus; scutellum bidentatum; metathorax niger; abdomen nigrum, basi fulvum, thorace brevius; femora postica nigro trimaculata; alæ obscure cinereæ.

*Female.*—Luteous. Head black about the ocelli. Thorax with a dilated black line; scutum with two luteous spots and a hindward transverse luteous line; scutellum bidentate. Metathorax black, roughly punctured. Petiole tawny, nearly half the

length of the abdomen. Abdomen black, acutely conical, tawny at the base, much shorter and very much narrower than the thorax. Hind-coxæ black towards the tips; hind-femora much incrassated, with three black spots, armed with four large black teeth. Wings dark cinereous; veins black; ulna full half the length of the humerus, a little longer than the radius.

Length of the body 3 lines; of the wings 6 lines.

East Florida. Discovered by Mr. Doubleday. In the British Museum.

Genus EPITRANUS.

*Epitranus formicarius*.

*Fœm.*—Rufescens, sat gracilis; antennæ filiformes, nigræ, graciles, basi fulvæ; parapsidum suturæ distinctissimæ; petiolus sex-carinatus; abdomen nigrum, breve; alæ angustæ, hyalinæ.

*Female.*—Reddish, rather slender. Head and thorax thinly and minutely punctured. Head as broad as the thorax; disk of the face smooth, with a slight furrow. Antennæ slender, black, filiform, tawny towards the base, shorter than the thorax, seated on a protuberance close to the mouth; scape not very much shorter than the flagellum. Thorax elongate, well developed; sutures of the parapsides very distinct. Metathorax very large. Petiole long, with six ridges. Abdomen black, shining, fusiform, very much shorter than the thorax. Hind-femora much incrassated, armed with numerous very minute teeth. Wings narrow, limpid; veins tawny; ulna full half the length of the humerus; radius almost obsolete; stigma black, minute.

Length of the body 2 lines; of the wings 3 lines.

This species indicates the close affinity between the *Chalcidæ* and the *Spalangiidæ*.

Port Natal. Discovered by Mr. Plant. In the British Museum.

Genus CHALCIS.

*Chalcis microlinea*.

*Fœm.*—Nigra, brevis, robusta; antennæ flagello lineari; calli humerales flavi; abdomen ovatum, acutum, thorace vix longius; pedes flavi, femoribus nigris, tibiis nigro notatis; alæ sub-cinereæ.

*Female.*—Black, short, stout. Head and thorax minutely punctured. Head not so broad as the thorax. Antennæ shorter than the thorax, with a compact linear flagellum. Thorax and abdomen of the usual structure. Thorax with a yellow callus at the base of each fore-wing. Abdomen oval, acute, pubescent

hindward, hardly longer than the thorax. Legs yellow; coxæ and femora black, the latter with yellow tips; anterior tibiæ marked with black; hind-tibiæ with a broad black band; ungues and pulvilli black. Wings slightly cinereous; veins black; ulna about half the length of the humerus, nearly twice the length of the radius.

Length of the body  $2\frac{1}{2}$  lines; of the wings 4 lines.

Port Natal. Discovered by Mr. Plant. In the British Museum.

Genus AGAMERION, Halliday.

*Agamerion Gelo.*

*Fœm.*—Lætè viride, cyaneo et purpureo varium; abdomen cupreum, longi-ovatum, acutum, basi aureo-viride; tarsi anteriores obscure fulvi; alæ fuscescente cinereæ.

*Agamerion Gelo*, Walk. (List Chal. Brit. Mus.)

*Female.*—Bright green, varied with blue and with purple. Head and thorax extremely minutely and closely punctured. Head as broad as the thorax. Prothorax well developed. Sutures of the parapsides very indistinct; scutellum large. Metathorax short. Petiole extremely short. Abdomen smooth, elongate-oval, acute, bright cupreous, golden green at the base, convex above, keeled beneath, a little shorter and narrower than the thorax. Hind-coxæ and hind-femora incrassated; hind-tibiæ curved, beset with short bristles; anterior tarsi dark tawny; hind-tarsi black. Wings brownish cinereous; veins black; ulna much shorter than the humerus, much longer than the radius; cubitus rather long; stigma very small.

Length of the body  $3\frac{1}{2}$  lines; of the wings 5 lines.

Adelaide. In the British Museum.

The previous description of this species is incomplete.

Genus AXIMA.

*Fœm.*—Corpus elongatum. Caput et thorax scabra. Caput brevissimum, antice bidentatum, thorace latius. Oculi fere petiolati. Antennæ filiformes, 13-articulatæ, thorace non longiores; articulus 1us gracilis; 2us brevis; clava longiconica. Thorax sub-gibbosus. Prothorax sub-quadratus. Scutum breve; parapsidum suturæ indistinctæ; scutellum carinatum. Metathorax magnus, declivis. Petiolus longus, linearis, tricarinatus. Abdomen lanceolatum, compressum, glabrum, thorace longius; segmenta 1<sup>um</sup>, 2<sup>um</sup> et 3<sup>um</sup> brevia;

4<sup>um</sup> longum; 5<sup>um</sup> longissimum. Oviductus subexsertus. Pedes breves, graciles, inermes. Alæ sat angustæ.

*Female*.—Body elongate. Head and thorax scabrous, or largely punctured. Head very short, broader than the thorax; face very obliquely retracted; an acute and prominent tooth on each side of the front by the eye. Eyes very prominent, nearly petiolated. Antennæ filiform, 13-jointed, minutely pubescent, inserted at some distance from the mouth, not longer than the thorax; scape slender; 2nd joint short, 3rd and 4th extremely minute; the following joints to the 10th successively decreasing in length; club compact, elongate-conical. Thorax slightly gibbous. Prothorax sub-quadrate, transverse, well developed. Scutum short; sutures of the parapsides indistinct; scutellum highly arched, keeled. Metathorax declining, much developed. Petiole linear, smooth, tricarinate, as long as the metathorax. Abdomen compressed, smooth, lanceolate, slightly pubescent on each side, longer than the thorax and less than half its breadth; 1st, 2nd and 3rd segments short; 4th long; 5th very long; 6th less than half the length of the 5th, shorter than the 7th. Oviduct extending a little beyond the tip. Legs short, slender, unarmed. Wings rather narrow, minutely and thickly pubescent; ulna about half the length of the humerus, more than twice the length of the radius.

The structure of this genus is very peculiar. It associates with the *Chalcidæ* more than with any other family, and has some resemblance to *Dirhinus*, but the hind-femora and the hind-tibiæ are quite straight and slender, and thus the especially peculiar character of the *Chalcidæ* quite disappears in it. It has some affinities with the *Eurytomidæ*, others with the *Eucharidæ*, and others with some exotic genera which connect the *Pteromalidæ* with the *Cleonymidæ*.

*Axima spinifrons*.

*Fœm*.—Nigra; femora anteriora rufa; tibiæ anticæ rufæ, apices versus nigræ; tarsi anteriores rufescentes; alæ vitreæ, fascia basali lata nigricante.

*Female*.—Black. Anterior femora red; fore-tibiæ red, black towards the tips; anterior tarsi reddish. Wings limpid, with a broad blackish band near the base; this band does not extend far from the costa of the hind-wings; veins black.

Length of the body 4 lines; of the wings 8 lines.

St. Paul. Discovered by Mr. Bates. In the British Museum.

## Genus EURYTOMA.

*Eurytoma capensis.*

*Mas.*—Nigra, robusta, scite punctata; petiolus brevis; abdomen glabrum, thorace multò brevius; tibiæ tarsique fulva; alæ limpidæ, venis fuscis.

*Male.*—Black, stout. Head and thorax minutely punctured. Petiole short. Abdomen smooth, much shorter than the thorax. Tibiæ and tarsi tawny. Wings limpid; veins brown; ulna thick, less than one-fourth of the length of the humerus; radius not longer than the cubitus.

Length of the body  $1\frac{1}{2}$  line; of the wings 3 lines.

Port Natal. Discovered by Mr. Plant. In the British Museum.

## Genus PERILAMPUS.

*Perilampus gloriosus.*

*Mas.*—Splendide smaragdinus; facies aureo-viridis; antennæ nigrae; scutellum productum, carinatum, acutum, aureo-cupreum; abdomen rufo-cupreum; tarsi fulvi; alæ nigricante cinereæ.

*Male.*—Brilliant emerald green. Head not broader than the thorax, minutely striated longitudinally; face golden-green, minutely punctured, with æneous pubescence; hind border dark cupreous. Antennæ black; scape bright green. Thorax largely punctured; scutum in front and sutures of the parapsides dark cupreous; scutellum prolonged into a long, keeled, golden-cupreous spine. Abdomen brilliant red-cupreous, smooth, a little broader and very much shorter than the thorax. Tarsi tawny. Wings blackish-cinereous; veins black; ulna hardly one-fourth of the length of the humerus, less than half the length of the radius; cubitus moderately long, abruptly descending; stigma extremely small.

Length of the body 4 lines; of the wings 7 lines.

Mexico. Discovered by M. Sallé. In the British Museum.

This and the following species differ sufficiently from the European *Perilampi* to be considered as the types of two new genera, but as the *Perilampi* are very few in number it is hardly necessary to separate them.

*Perilampus discolor.*

*Mas.*—Niger; caput parvum, thorace angustius; thorax fulvo bivittatus; parapsidum suturæ obsoletæ; scutellum bidentatum; tarsi fulvi; alæ nigricante cinereæ.

*Male.*—Black. Head and thorax rather largely and thickly

punctured. Head small, not near so broad as the thorax. Antennæ thick, shorter than the breadth of the head. Thorax with a tawny stripe along each side. Prothorax extremely short. Scutum very broad; sutures of the parapsides quite obsolete; scutellum bidentate at the tip. Abdomen smooth, much shorter but not broader than the thorax. Knees and tarsi tawny. Wings blackish-cinereous, cinereous towards the base; veins black; ulna thick, about one-third of the length of the humerus, more than twice the length of the radius; cubitus very short; stigma furcate.

Length of the body  $2\frac{1}{2}$  lines; of the wings 4 lines.

Port Natal. Discovered by Mr. Plant. In the British Museum.

#### Genus EUCHARIS.

##### *Eucharis smaragdina*.

*Mas.*—Aureo-viridis; antennæ nigræ, setaceæ, basi rufescentes; thorax gibbosus; prothorax brevissimus; parapsidum suturæ indistinctæ; metathorax bene determinatus; petiolus cupreus, gracillimus, thorace vix brevior; abdomen cupreum, parvum, longi-ovatum; pedes rufescentes; alæ fusciscente cinereæ.

*Male.*—Golden green. Head very short, thinly and minutely punctured, narrower than the thorax. Antennæ black, setaceous, much longer than the thorax; scape reddish, very short. Thorax rather gibbous, largely punctured. Prothorax extremely short. Scutum with an indistinct longitudinal furrow; sutures of the parapsides indistinct; scutellum prominent and vertical hindward. Metathorax well developed. Petiole cupreous, linear, very slender, nearly as long as the abdomen. Abdomen smooth, cupreous, compressed, elongate oval, keeled beneath, much shorter than the thorax and not half its breadth, forming a slightly obtuse angle with the petiole. Legs reddish; coxæ green. Wings brownish-cinereous; veins black; ulna as long as the humerus, nearly twice the length of the radius; cubitus extremely short.

Length of the body  $4\frac{1}{2}$  lines; of the wings 8 lines.

Tasmania. Discovered by Mr. Allport. In the British Museum.

##### *Eucharis piceicornis*.

*Mas.*—Obscure viridis, cupreo varia; antennæ piceæ, setaceæ, basi rufescentes; petiolus cupreus, longissimus, abdomine paullò longior; abdomen cupreum, altum, breve; pedes rufescentes; alæ angustæ, fusciscente cinereæ.

*Male.*—Dark green, varied with cupreous, in structure like the preceding species. Antennæ piceous, setaceous, much longer than the thorax; scape reddish. Petiole cupreous, linear, very

slender, a little longer than the abdomen. Abdomen cupreous, smooth, compressed, high, triangular when viewed laterally, about half the breadth of the thorax and little more than half its length, forming a slightly obtuse angle with the petiole. Legs reddish; coxæ cupreous. Wings brownish cinereous, narrow; veins black; ulna much shorter than the humerus, much longer than the radius; cubitus extremely short.

Length of the body 4 lines; of the wings 7 lines.

Sydney. Discovered by Mr. Stutchbury. In the British Museum.

*Eucharis delicatula.*

*Mas.*—Cyaneo-viridis; antennæ nigræ, setacæ, basi pallide flavæ; metathorax purpureus; petiolus purpureus, gracillimus, abdomine multo brevior; abdomen cupreum, longi-ovatum, subtus flavescens, thorace non brevius; pedes pallide flavi; alæ sub-cinereæ.

*Male.*—Bluish-green. Head very short, thinly and minutely punctured, a little broader than the thorax. Antennæ black, setaceous; scape pale yellow. Thorax very thickly punctured, in structure like that of *E. smaragdina*. Metathorax mostly purple. Petiole purple, linear, very slender, much shorter than the abdomen. Abdomen cupreous, smooth, compressed, elongate-oval, yellowish on each side and beneath, much narrower, but not shorter, than the thorax. Legs pale yellow. Wings slightly cinereous; basal calli pale yellow; veins black; ulna shorter than the humerus, much longer than the radius.

Length of the body  $2\frac{1}{2}$  lines; of the wings 5 lines.

Australia (?). In the British Museum.

*Eucharis implexa.*

*Fæm.*—Cuprea; caput antice viride; antennæ piceæ, filiformes, gracillimæ, basi fulvæ; scutum latissimum, scitissime striatum; metathorax magnus, viridis; petiolus æneo-niger, gracilis; abdomen nigrum, longi-ellipticum, supra concavum, thorace non longius; pedes pallide flavi; alæ limpidæ.

*Female.*—Cupreous. Head very short, nearly smooth, green in front, a little narrower than the thorax. Antennæ piceous, filiform, very slender, not longer than the thorax; scape tawny. Thorax gibbous, minutely punctured. Prothorax extremely short. Scutum very broad, transversely and very finely striated, indistinctly separated from the parapsides; the latter with the disk

partly quite smooth. Metathorax large, green, nearly vertical. Petiole æneous-black, slender, linear, hardly one-third of the length of the abdomen. Abdomen black, smooth, elongate-elliptical, concave above, keeled beneath, narrower but not longer than the thorax. Legs pale yellow. Wings limpid; veins black, pale yellow at the base; ulna very much shorter than the humerus, nearly twice the length of the radius.

Length of the body 3 lines; of the wings 6 lines.

This may be the female of *E. piceicornis*, notwithstanding the difference in the sculpture of the thorax.

Tasmania. Discovered by the Rev. T. Ewing and by Mr. Allport. In the British Museum.

*Eucharis rufiventris.*

*Fœm.*—Cuprea; antennæ nigræ, basi fulvæ; pectoris discus viridis; petiolus cupreus, brevis; abdomen rufum, basi nigrum; pedes fulvi; alæ limpidæ.

*Female.*—Cupreous; like the preceding species in structure. Antennæ black; scape tawny. Disk of the pectus green. Scutellum hindward and metathorax vertical. Petiole cupreous, not more than one-fourth of the length of the abdomen. Abdomen red, smooth, black towards the base. Legs tawny. Wings limpid; veins piceous; ulna very much shorter than the humerus, longer than the radius; stigma black.

Length of the body 3 lines; of the wings 6 lines.

Adelaide. In the British Museum.

*Eucharis contigens.*

*Mas.*—Nigra, lata; antennæ lineares, serratæ, basi sordide albidæ, apice rufescentes, capitis latitudine paullò longiores; parapsidum suturæ distinctæ; scutellum striatum, productum, acutum; abdomen altissimum, thorace non longius; pedes pallide flavescentes; alæ cinereæ.

*Male.*—Black, broad. Head very short, quite smooth, as broad as the thorax. Antennæ black, linear, serrated, a little longer than the breadth of the head; scape pale dingy whitish; joints transverse; tips dark reddish. Thorax short, roughly punctured. Prothorax extremely short. Sutures of the parapsides distinct; scutellum conical, longitudinally striated, terminating in a stout and rather long spine. Metathorax vertical. Petiole less than one-fourth of the length of the abdomen. Abdomen smooth, very deep, slightly compressed, narrower but

not longer than the thorax. Legs pale dingy yellow. Wings cinereous; veins black; ulna much shorter than the humerus, much longer than the radius.

Length of the body  $2\frac{1}{2}$  lines; of the wings 6 lines.

This species in the structure of antennæ and of the scutellum seems to connect *Eucharis* with *Thoracantha*.

Sarawak, Borneo. Discovered by Mr. Wallace. In the British Museum.

#### Genus THORACANTHA.

##### *Thoracantha cynipsea.*

*Fœm.*—*Æneo-nigra*; facies striata; antennæ nigræ, filiformes, basi fulvæ, apice rufescentes, capitis latitudine non longiores; thorax altissimus; scutum maximum, transverse striatum; scutellum striatum, spinis duabus abdominis apicem attingentibus; petiolus brevissimus; abdomen nigrum, subtus apiceque fulvum, thorace non longius; pedes pallide fulvi; alæ limpidæ.

*Mas.*—*Nigro-ænea*; facies lateribus excavatis; antennæ piceæ, ramis longis æqualibus pubescentibus, basi fulvæ; scutum transverse striatum; scutellum sulco transverso, spinis duabus arcuatis, apice sub-contiguïs, abdominis apicem paullò superantibus; alæ cinereæ.

*Female.*—*Æneous-black*. Head very short, not near so broad as the thorax; face longitudinally striated. Antennæ black, filiform, reddish at the tips, not longer than the breadth of the head; scape tawny. Thorax gibbous, very high. Prothorax extremely short. Scutum very large, transversely and finely striated; sutures of the parapsides slight. Scutellum longitudinally striated, ending in two slightly curved spines, which extend to the tip of the abdomen. Metathorax vertical, much developed, not punctured. Petiole very short. Abdomen black, smooth, elliptical, tawny beneath and at the tip, much narrower but not longer than the thorax. Legs pale tawny. Wings limpid; veins black; ulna much shorter than the humerus; radius obsolete.

Length of the body  $2\frac{1}{2}$  lines; of the wings 5 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

*Male.*—*Blackish-æneous*. Head a little broader than the thorax; face excavated in the disk on each side. Antennæ piceous, with long pubescent branches of equal length; scape tawny, scutum transversely striated; parapsides smooth, finely striated towards

the scutum; scutellum with a transverse furrow, ending in two curved converging spines, whose tips are nearly contiguous, and which extend a little beyond the abdomen. Wings cinereous; veins black.

Villa Nova. Discovered by Mr. Bates.

*Thoracantha pallescens.*

*Mas.*—Purpurascens atra; antennæ filiformes, fulvæ, apice nigræ; thorax gibbus; scutum transverse striatum, antice sub-sulcatum; parapsidum suturæ parallelæ; scutellum spinis duabus pallidis sub-arcuatis, abdominis apicem fere attingentibus; petiolus piceus, striatus, gracillimus, abdomine non brevior; abdomen fulvum, thorace paullo brevius; pedes pallidissime fulvi; alæ fusciscente cinereæ.

*Male.*—Deep purplish-black. Head and thorax minutely punctured. Head very short, a little broader than the thorax. Eyes prominent. Antennæ filiform, tawny, black towards the tips, longer than the thorax. Thorax gibbous. Prothorax extremely short. Scutum transversely and very finely striated, with a slight longitudinal furrow in front; sutures of the parapsides slight, parallel to each other; scutellum ending in two compressed, slightly curved, pale, dingy spines, which extend nearly to the tip of the abdomen. Petiole piceous, linear, striated, very slender, as long as the abdomen. Abdomen tawny, smooth, much compressed, not longer than high, a little shorter than the thorax, and not more than half its breadth. Legs very pale tawny. Wings brownish-cinereous; disks pale cinereous; veins black; ulna nearly as long as the humerus; radius obsolete.

Length of the body 3 lines; of the wings 5 lines.

Villa Nova. Discovered by Mr. Bates. In the British Museum.

*Thoracantha striatissima.*

*Mas.*—Æneo-nigra; antennæ ramis longis pubescentibus; scutum transverse striatum; parapsidum suturæ distinctæ; scutellum spinis duabus striatis sub-arcuatis, abdominis apicem superantibus; petiolus abdomine multo longior; abdomen nigrum, fusiforme, valdè compressum, thorace multo longius.

*Fœm.*—Atra; frons striata; antennæ filiformes, basi albidæ; scutum sub-purpurascens, transverse striatum; scutellum striatum, spinis duabus abdominis apicem paullo superantibus; abdomen purpureo-nigrum, ellipticum, thorace non longius; pedes albidī; alæ limpidæ.

*Male*.—Æneous black, thinly pilose. Head a little broader than the thorax. Eyes prominent. Antennæ with long pubescent branches. Scutum transversely striated; parapsides almost smooth, with distinct sutures; scutellum ending in two striated, slightly curved and converging spines, which extend beyond the tip of the abdomen. Petiole much longer than the abdomen. Abdomen black, smooth, fusiform, much compressed, much shorter than the thorax, and less than half its breadth.

Villa Nova. Discovered by Mr. Bates.

*Female*.—Deep black, slightly pilose. Head very short, a little broader than the thorax; front with oblique striæ on each side. Eyes very prominent. Palpi whitish. Antennæ filiform, longer than the thorax; scape whitish. Thorax gibbous. Prothorax extremely short. Scutum transversely striated, with a purplish tinge; sutures of the parapsides slight; scutellum flat above, longitudinally striated, ending in two slightly curved and converging spines, which extend a little beyond the tip of the abdomen. Petiole linear, slender, striated, as long as the abdomen. Abdomen purplish-black, smooth, elliptical, keeled and whitish beneath, not longer than the thorax and little more than half its breadth. Legs whitish. Wings limpid; veins whitish; ulna nearly as long as the humerus; radius obsolete.

Length of the body 3 lines; of the wings 5 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

*Thoracantha inæxagens.*

*Fœm*.—Æneo-nigra; facies substriata; antennæ piceæ, filiformes, basi fulvæ; thorax gibbus; scutum transverse striatum; parapsidum suturæ parallelæ; scutellum sub-læve, spinis duabus striatis sub-arcuatis abdomen paullò superantibus; . petiolus brevis, robustus; abdomen nigrum, altum, thorace multo brevius; pedes pallide flavi; alæ limpidæ.

*Female*.—Æneous-black. Head very short, hardly as broad as the thorax; face with extremely minute striæ, almost smooth. Antennæ piceous, filiform, shorter than the thorax; scape tawny. Thorax gibbous. Prothorax extremely short. Scutum transversely striated; parapsides almost smooth, their sutures parallel to each other; scutellum almost smooth, ending in two striated slightly curved spines, which extend a little beyond the tip of the abdomen. Metathorax vertical. Petiole short, stout. Abdomen black, smooth, much higher than long, keeled beneath, much shorter than the thorax, and little more than half its breadth.

Legs pale yellow; coxæ black. Wings limpid; veins black, pale yellow towards the base; ulna a little shorter than the humerus; radius obsolete.

Length of the body 2 lines; of the wings 4 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

*Thoracantha reflexa.*

*Fœm.*—Æneo-nigra; antennæ piceæ, clavatæ, apice rufescentes; thorax gibbus; parapsidum suturæ distinctæ; scutellum sulcatum, quadristriatum, spinis duabus striatis arcuatis abdomen paullò superantibus; petiolus robustus, breviusculus; abdomen breve, altum; pedes nigri, tibiis tarsisque fulvis; alæ cinereæ.

*Female.*—Æneous-black. Head very short, almost smooth, as broad as the thorax. Antennæ piceous, clavate, reddish at the tips, not more than half the length of the thorax. Thorax gibbous. Prothorax extremely short. Scutum with a few transverse striæ; parapsides almost smooth, their sutures distinct; scutellum with a furrow in the middle, and with two striæ on each side, ending in two curved finely striated spines which extend a little beyond the tip of the abdomen. Petiole stout, rather short. Abdomen smooth, compressed, much higher than long, with only one distinct segment, keeled beneath, much shorter and narrower than the thorax. Legs black; tibiæ and tarsi tawny. Wings cinereous; veins black; ulna very much shorter than the humerus; radius less than one-fourth of the length of the ulna; cubitus not so very short as in most species.

Length of the body  $1\frac{1}{2}$  line; of the wings 3 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

*Thoracantha flavicornis.*

*Fœm.*—Nigra; antennæ flavescentes, sub-clavatæ, capitis latitudine non longiores; scutum transverse striatum; parapsidum suturæ indistinctæ; scutellum unisulcatum, spinis duabus latissimis sulcatis sub-arcuatis abdominis apicem fere attingentibus; petiolus robustus, striatus, longiusculus; abdomen valdè compressum, thorace paullò longius; pedes pallide flavi; alæ limpidæ.

*Female.*—Black. Head very short, very minutely punctured, much narrower than the breadth of the thorax. Antennæ yellowish, sub-clavate, not longer than the breadth of the head. Thorax gibbous, pubescent. Prothorax extremely short. Scutum

transversely striated; parapsides very minutely punctured, with slight sutures; scutellum punctured, with a distinct longitudinal furrow, emitting two very broad, ridged, slightly curved spines, which extend nearly to the tip of the abdomen. Petiole stout, striated, rather long. Abdomen smooth, much compressed, hardly longer than high; a little longer than the thorax, but not more than half its breadth. Legs pale yellow; coxæ black. Wings limpid; veins tawny; ulna much shorter than the humerus; radius obsolete; cubitus extremely short; stigma black.

Length of the body  $2\frac{1}{2}$  lines; of the wings 4 lines.

Villa Nova. Discovered by Mr. Bates. In the British Museum.

*Thoracantha atrata.*

*Mas.*—Atra; antennæ nigræ, ramis longis æqualibus pubescentibus, basi piceæ; scutum transverse striatum; scutellum striatum, spinis duabus striatis arcuatis abdominis apicem paullò superantibus; petiolus gracilis, abdomine multo longior; abdomen fusiforme, altum, valdè compressum, thorace fere duplo brevius; pedes pallide flavi; alæ cinereæ.

*Male.*—Deep black. Head with very minute transverse striæ, as broad as the thorax. Antennæ black, with long pubescent branches of equal length; scape piceous. Scutum transversely striated; scutellum longitudinally striated, ending in two striated, curved, converging spines, which extend a little beyond the tip of the abdomen. Petiole linear, slender, much longer than the abdomen. Abdomen smooth, fusiform, deep, much compressed, hardly more than half the length of the thorax and much less than half its breadth. Legs pale yellow; coxæ black. Wings cinereous; veins black; ulna shorter than the humerus; radius obsolete.

Length of the body 3 lines; of the wings 5 lines.

In the British Museum.

This species is closely allied to *T. striatissima* (suprà, p. 380), but the spines of the scutellum are shorter and more curved.

*Thoracantha alta.*

*Fœm.*—Atra; antennæ nigræ, basi fulvæ; thorax gibbus; scutum transverse striatum; parapsidum suturæ indistinctæ; scutellum striatum, spinis duabus sub-arcuatis abdominis apicem attingentibus; petiolus abdominis dimidio vix brevior; abdomen fusiforme, altum, compressum, thorace paullò brevius; pedes pallide flavi; alæ limpidæ.

*Female*.—Deep black. Head smooth, a little narrower than the thorax. Antennæ black; scape tawny. Thorax gibbous, largely punctured; scutum transversely striated; sutures of the parapsides indistinct; scutellum longitudinally striated, ending in two slightly curved but not converging spines, which extend to the tip of the abdomen. Petiole linear, nearly half the length of the abdomen. Abdomen fusiform, smooth, deep, compressed, a little shorter and very much narrower than the thorax. Legs pale yellow; coxæ black. Wings limpid; veins brown; ulna hardly more than half the length of the humerus; radius obsolete.

Length of the body  $2\frac{1}{2}$  lines; of the wings 5 lines.

Brazil. In the British Museum.

*Thoracantha surgens.*

*Mas*.—Atra; caput æneo-nigrum; antennæ nigræ, ramis longis æqualibus pubescentibus; thorax gibbus; scutum transverse striatum; parapsidum suturæ indistinctæ; scutellum sub-rugulosum, sulco transverso, spinis duabus arcuatis striatis abdominis apicem superantibus; petiolus gracilis, abdominis longitudine; abdomen fusiforme, compressum, thoracis dimidio non longius; pedes pallide flavi; alæ fusciscente cinereæ.

*Male*.—Deep black. Head æneous-black, a little broader than the thorax, very minutely punctured in front. Antennæ black, with long pubescent branches of equal length. Thorax gibbous. Scutum transversely striated; parapsides almost smooth, with slight sutures; scutellum somewhat rugulose, with a transverse furrow, ending in two curved, converging, striated spines, which extend beyond the tip of the abdomen. Petiole linear, slender, as long as the abdomen. Abdomen fusiform, smooth, compressed, not more than half of the length or of the breadth of the thorax. Legs pale yellow; coxæ black. Wings brownish-cinereous; veins black; ulna shorter than the humerus; radius obsolete.

Length of the body 2 lines; of the wings 4 lines.

Santarem. Discovered by Mr. Bates. In the British Museum.

*Thoracantha apta.*

*Mas*.—Atra, crassa, brevissima; caput parvum, sub-læve; antennæ nigræ, capitis latitudine non longiores, ramis longis pubescentibus; thorax gibbus; scutum transverse striatum; scutellum striatum, spinis duabus rectis latis compressis abdominis apicem fere attingentibus; petiolus robustus, abdominis dimidio non longior; abdomen fusiforme, compressum,

thoracis dimidio brevius; pedes fulvi, femoribus nigricantibus; alæ limpidæ.

*Male*.—Deep black; very short and thick. Head almost smooth, lower and narrower than the thorax. Antennæ black, with long pubescent branches, not longer than the breadth of the head. Thorax gibbous, short; scutum transversely striated; scutellum longitudinally striated, ending in two straight, broad, compressed spines, which extend nearly to the tip of the abdomen. Petiole stout, about half the length of the abdomen. Abdomen smooth, fusiform, compressed, less than half of the length or of the breadth of the thorax. Legs tawny; coxæ black; femora blackish. Wings limpid; veins pale; ulna shorter than the humerus; radius obsolete.

Length of the body  $1\frac{1}{2}$  line; of the wings 3 lines.

Santarem and Villa Nova. Discovered by Mr. Bates. In the British Museum.

#### Genus SCHIZASPIDIA.

##### *Schizaspidia pretendens*.

*Mas*.—Læte viridis; antennæ robustæ, ferrugineæ, 9-pectinatae, thorace non longiores; thorax rude punctatus; scutellum longi-conicum, spinis duabus parvis; petiolus abdominis dimidio brevior; abdomen fusiforme, compressum, thorace valde brevius; pedes fulvi; alæ limpidæ.

*Male*.—Bright green. Head short, nearly smooth, as broad as the thorax. Antennæ stout, ferruginous, not longer than the thorax, with nine stout branches, which successively decrease in length. Thorax roughly punctured. Prothorax extremely short. Sutures of the parapsides slight; scutellum elongate-conical, armed with two short spines. Metathorax vertical, well developed. Petiole less than half the length of the abdomen. Abdomen fusiform, compressed, smooth, triangular when viewed laterally, very much shorter than the thorax and less than half its breadth. Legs tawny. Wings limpid; veins tawny, not extending to half the length of the wing; ulna extremely short, not longer than the cubitus; radius obsolete; cubitus short.

Length of the body  $1\frac{3}{4}$  line; of the wings 3 lines.

This species may form a new genus.

Villa Nova. Discovered by Mr. Bates. In the British Museum.

##### *Schizaspidia plagiata*.

*Mas*.—Nigra, robusta; antennæ piceæ, 9-ramosæ, basi flavæ; thorax rude punctatus; prothorax maculis duabus late-

ralibus flavis; pectus flavo bimaclatum; scutellum conicum, bispinosum, flavo bimaclatum; metathorax cornubus duobus apice rufescentibus; petiolus abdominis dimidio brevior; abdomen longi-ovatum, compressum, subtus flavescens, thorace valdè brevius; pedes pallide flavi; alæ fusciscente cinereæ.

*Eucharis plagiata*, Westwood, MSS.

*Male*.—Black, stout. Head nearly smooth, not broader than the thorax. Antennæ piceous, with nine branches; scape yellow. Thorax largely punctured. Prothorax well developed in the middle, with a yellow spot on each side, where it is much narrower. A yellow spot on each side of the pectus in front of the fore-wings. Scutum short; sutures of the parapsides slight; scutellum conical, ending in two spines, with a yellow spot on each side. Metathorax well developed, armed with two stout horns with reddish tips. Petiole slender, less than half the length of the abdomen. Abdomen elongate oval, compressed, smooth, yellowish beneath, very much shorter and narrower than the thorax. Legs pale yellow. Wings brownish-cinereous; veins piceous; humerus thickened towards its tip; ulna full half the length of the humerus; radius nearly obsolete; cubitus short, black, descending directly towards the disk.

Length of the body  $3\frac{1}{2}$  lines; of the wings 5 lines.

Para. Presented by Mr. Bates. In the British Museum.

*Schizaspidia cyanea*.

*Mas*.—Saturate cyanea, crassa; antennæ nigræ, 8-ramosæ, capitis latitudinæ non longiores; thorax rude punctatus; parapsidum suturæ indistinctæ; scutellum elongatum, spinis duabus crassis sub-arcuatis abdominis apicem longe superantibus; petiolus robustus, striatus, abdominis dimidio brevior; abdomen compressum, thoracis dimidio non longius; pedes fulvi, femoribus nigris; alæ anticæ macula sub-costali fusca diffusa.

*Male*.—Dark blue, thick. Head short, nearly smooth, not so broad as the thorax. Antennæ black, not longer than the breadth of the head, with eight branches which successively decrease in length. Thorax roughly punctured. Prothorax extremely short. Scutum broad; sutures of the parapsides indistinct; scutellum large, elongate, ending in two thick, slightly curved spines which extend much beyond the tip of the abdomen. Metathorax short, vertical. Petiole stout, striated, less than half the length of the abdomen. Abdomen smooth, compressed, not more than half the length, and less than half the breadth of the thorax. Legs tawny;

femora black. Wings cinereous. Fore-wings with a diffuse brown spot by the stigma; veins piceous; ulna about half the length of humerus, longer than the radius; cubitus black, short; stigma rather large.

Length of the body  $2\frac{1}{2}$  lines; of the wings 5 lines.

This and the preceding species may each form a new genus.

Amboina. Discovered by Mr. Wallace. In the British Museum.

### Genus PALMON.

#### *Palmon instructus.*

*Fœm.*—Viridis; caput cyaneo-viride; antennæ fulvæ, apice nigræ; abdomen cyaneo-viride, subtus fulvum; tibiæ anteriores tarsique flavescences; alæ limpidæ.

*Female.*—Green. Head and thorax very minutely punctured. Head bluish-green, as broad as the thorax. Antennæ tawny; scape yellowish beneath; club black. Petiole short. Abdomen bluish-green, compressed, deep, fusiform above, tawny beneath, shorter than the thorax. Oviduct and its sheaths very much longer than the body. Trochanters, tarsi and anterior tibiæ yellowish. Wings limpid; veins brownish; ulna much shorter than the humerus, more than four times the length of the radius; cubitus very short; stigma extremely small.

Length of the body  $2\frac{1}{4}$  lines; of the wings 3 lines.

Hong Kong. Discovered by Mr. Bowring. Port Natal. Discovered by Mr. Plant. In the British Museum.

*Note.*—*Chalcis? explorator* (Coquerel, Mag. Zool. 1855, vii. 428, pl. 10, f. 4) seems to belong to an undescribed genus of *Torymidæ*.

### Genus ECDAMUA.

*Fœm.*—Corpus elongatum, punctatum. Caput parvum. Antennæ filiformes, thorace breviores. Prothorax conicus. Scutum angustum; parapsidum suturæ optimè determinatæ; scutellum parvum. Metathorax valdè determinatus. Petiolus gracilis, metathorace non brevior. Abdomen fusiforme, subcompressum, glabrum, thorace valdè longius. Oviductus longissimus. Pedes simplices; coxæ posticæ longissimæ. Alæ vitreæ, non notatæ.

*Female.*—Body elongate. Head and thorax thickly punctured. Head short, hardly as broad as the thorax; face vertical. Antennæ filiform, compact, shorter than the thorax. Prothorax

conical, well developed. Scutum narrow; sutures of the parapsides very conspicuous; scutellum small; metathorax very much developed. Petiole slender, linear, as long as the metathorax. Abdomen smooth, deep, fusiform, slightly compressed, very much longer than the thorax, of the usual structure. Oviduct very long. Legs simple; hind-coxæ very long. Wings unspotted; ulna much shorter than the humerus and than the radius; cubitus short; stigma small.

This genus is most nearly allied to *Palmon* and to *Callimome*. It differs from the former by the filiform antennæ and by the slender hind-femora, and from the latter by the long petiole of the abdomen.

*Ecdamua macrotelus*.

*Fæm.*—Læte cyaneo-viridis aut aurato-viridis, purpureo varia; antennæ nigræ, basi fulvæ; abdomen subtus fulvum; oviductus corpore triplo aut quadruplo longior; pedes albid; femora cyaneo varia; tibiæ posticæ apice nigricantes; alæ sub-cinereæ, apice nigricante cinereæ.

*Female.*—Bright bluish-green, or golden green, varied with purple. Antennæ black; scape tawny. Abdomen tawny beneath. Oviduct from three to four times the length of the body. Legs whitish; anterior femora striped with blue; coxæ and hind-femora blue, varied with purple; hind-tibiæ blackish towards the tips. Wings slightly cinereous, blackish-cinereous at the tips; veins black.

Length of the body  $2\frac{3}{4}$ —3 lines; of the wings  $4\frac{3}{4}$ —5 lines.

Sierra Leone. Discovered by Mr. Foxcroft. Natal. Discovered by M. Gueinzins. In the British Museum.

The West African specimen is golden green, and is a little smaller, and apparently has a longer oviduct than the South African specimen.

Genus *PTEROMALUS*.

*Pteromalus altifrons*.

*Fæm.*—Æneus, brevis, latus; caput thorace paullò latius; frons magna; antennæ piceæ, clavatæ, basi fulvæ; abdomen ovatum, planum, thorace paullò brevius et latius; pedes rufescentes, breves, validi; alæ latæ, hyalinæ, venis fuscis, stigmatè sat magno.

*Female.*—Æneous, short, broad. Head and thorax minutely punctured. Head a little broader than the thorax; face very deep. Antennæ piceous, clavate, about as long as the breadth of

the head; scape tawny; club conical. Thorax of the usual structure. Abdomen oval, flat above, hardly convex beneath, a little shorter and broader than the thorax. Legs reddish, short, stout. Wings broad, hyaline; veins brown; ulna descending obliquely to the disk after its junction with the humerus; its costal part shorter than the radius, and less than half the length of the humerus; stigma rather large.

Length of the body  $1\frac{1}{2}$  line; of the wings  $2\frac{1}{2}$  lines.

Port Natal. Discovered by Mr. Plant. In the British Museum.

#### Genus CHEIROPACHYS.

##### *Cheiropachys genualis.*

*Fæm.*—Nigricante ænea, robusta; antennæ rufæ, nigro bifasciatæ; pedes rufi, genubus albis; alæ vitta discali arcuata fusca.

*Female.*—Blackish æneous, stout. Head and thorax minutely punctured. Head short, not broader than the thorax; face slightly retracted. Antennæ red, slender, filiform, inserted in the middle of the front, fully as long as the thorax; scape slender; 2nd joint elongate-cyathiform, black at the tip; 3rd and 4th black, distinct; 10th, 11th and 12th black; 13th red. Abdomen lanceolate, flat above, keeled beneath, narrower and much longer than the thorax. Legs red, stout, knees white, the white hue extending over the basal part of the hind-tibiæ. Wings cinereous. Fore-wings with a curved, brown, discal stripe; veins black; ulna full half the length of the humerus, as long as the radius; cubitus rather long, slightly curved.

Length of the body  $4\frac{1}{2}$  lines; of the wings 6 lines.

Port Natal. Discovered by Mr. Plant. In the British Museum.

#### Genus LÆLAPS, Haliday.

*Fæm.*—Corpus convexum, elongatum, non latum; caput et thorax sub-punctata. Caput thorace latius; frons brevissima; facies excavata. Antennæ 14-articulatæ, graciles, subclavatæ, prope os insertæ; articulus 1<sup>us</sup> longus, linearis; 3<sup>us</sup> brevis; 4<sup>us</sup> et sequentes brevissimi; clava longi-conica. Prothorax antice paullò angustior, non angulatus. Parapsidium suturæ bene determinatæ; paraptera et epimera magna; scutellum scitissime striatum, sutura transversa. Metathorax bene determinatus, rude punctatus. Petiolus brevissimus. Abdomen glabrum, plus minusve lanceolatum; segmentum 1<sup>um</sup> longissimum. Pedes graciles, inermes, longiusculi;

tibiæ intermediæ calcare longo apicali. Alæ anticæ sat angustæ.

*Female*.—Body convex, elongated, not broad. Head and thorax minutely punctured. Head broader than the thorax, with a few bristles, front very short; face vertical, excavated. Antennæ slender, sub-clavate, 14-jointed, seated near the mouth, more than twice the length of the breadth of the head; scape long, linear; 2nd joint less than one-third of the length of the scape; 3rd joint short; the following joints very compactly joined together; the three terminal joints forming an elongated conical club. Prothorax not angular, a little narrower in front, nearly twice broader than long. Scutum with the sutures of the parapsides well defined; paraptera and epimera large. Scutellum with a transverse suture, longitudinally and very finely striated. Metathorax well developed, largely punctured, nearly horizontal, with a protuberance in front. Petiole very short. Abdomen smooth, as long as the thorax or much longer, lanceolate hindward; 1st segment very long. Legs slender, unarmed, rather long; middle tibiæ with a long apical spur. Fore-wings rather narrow; ulna a little shorter than the humerus; radius much shorter than the ulna; cubitus long, about one-third of the length of the ulna, forming a very acute angle with the radius.

*Laelaps picta.*

*Fœm.*—Nigricante ænea; antennæ nigræ, fulvo fasciatæ; abdomen æneum, basi purpureum et cyaneum, apice rufescens; oviductus exsertus; pedes nigri, flavo fasciati; alæ anticæ litura transversa nigra, vitta diffusa nigricante.

*Female*.—Blackish-æneous. Antennæ black, with a broad tawny band before the middle. Metathorax black. Abdomen æneous, as long as the thorax, bright purple and blue towards the base, reddish at the tip; sheaths of the oviduct black, extending just beyond the tip. Legs black; trochanters, knees, tibiæ and tarsi towards the base, fore-coxæ and hind-coxæ pale yellow. Wings cinereous. Fore-wings with a transverse black mark at the end of the humerus, and with a blackish stripe which is dilated and paler exteriorly and occupies the whole of the apical part; veins black.

Length of the body 5 lines; of the wings 7 lines.

Eggs. Discovered by Mr. Bates. In the British Museum.

*Laelaps decorata.*

*Fœm.*—Saturate cyanea; antennæ nigræ; senti discus æneoviridis; scutellum purpurascens; abdomen rufum, apicem

versus valdè elongatum; pedes nigri, albo-fasciati; alæ anticæ gutta costali nigra, vitta nigricante, fascia alba.

*Female*.—Deep blue, thickly punctured. Head obliquely striated on each side in front. Antennæ black. Disk of the scutum æneous-green; scutellum purplish. Metathorax black, roughly punctured. Abdomen red, smooth, shining, nearly twice the length of the thorax; the apical part much elongated, lanceolate, compressed. Legs black; coxæ, knees and posterior tarsi except towards the tips white; fore-tarsi white at the base. Wings cinereous. Fore-wings with a black dot behind the end of the humerus, and with a slightly oblique blackish stripe which extends from the dot to the cubitus, where it is intersected by the white band; veins black.

Length of the body 5 lines; of the wings 6 lines.

Eggs. Discovered by Mr. Bates. In the British Museum.

#### Genus CALOSOTER.

##### *Calosoter bifasciatus*.

*Fœm*.—Niger; caput subtus cyaneo-viride, antice excavatum; antennæ nigræ; pectus saturate cyaneum; abdomen cupreum, viridi varium; tarsi albi; alæ anticæ fasciis duabus latis nigricantibus.

*Female*.—Black. Head and thorax dull, very minutely punctured. Head bluish-green beneath, a little broader than the thorax, deeply excavated in front. Antennæ black. Pectus dark blue. Abdomen cupreous, lanceolate, varied with green, longer than the thorax. Tarsi white; fore-tarsi dark tawny. Wings cinereous; fore-wings with two broad blackish bands; veins black; ulna a little shorter than the humerus, a little longer than the radius; cubitus long; stigma small.

Length of the body  $2\frac{1}{2}$  lines; of the wings 4 lines.

Sarawak, Borneo. Discovered by Mr. Wallace. In the British Museum.

#### Genus EPISTENIA.

##### *Epistenia scutata*.

*Fœm*.—Læte viridis; antennæ nigræ; thorax cyaneo purpureo et æneo varius; abdomen lanceolatum, scite punctatum, aurato fasciatum, apice purpureum; pedes rufi; femora antica dilatata; alæ anticæ vitta discali nigricante.

*Female*.—Bright green. Head and thorax largely punctured. Head very little broader than the thorax; face horizontal, eyes

pubescent, large, prominent. Antennæ black, slender, nearly filiform, seated by the mouth, not longer than the thorax. Thorax partly blue or purple; disk of the scutum and scutellum, except the tip, æneous. Abdomen lanceolate, finely punctured, flat above, keeled beneath, golden-green beyond the middle, purple at the tip, very much longer than the thorax. Legs red; fore-femora dilated and forming an edge beneath, except towards the tips. Wings cinereous. Fore-wings with a blackish discal stripe, not extending to the tip of the abdomen; veins black; ulna nearly as long as the humerus, longer than the radius.

Length of the body 5 lines; of the wings 6 lines.

Para. Discovered by Mr. Bates. In the British Museum.

*Epistenia basalis.*

*Fœm.*—Læte cyaneo-viridis; antennæ nigræ; thorax suturis purpurascens; abdomen æneo-viride, lanceolatum, scitissime punctatum, basi cupreo-rufum, apice purpurascens; pedes rufi; femora antica incrassata; alæ cinereæ.

*Female.*—Bright bluish-green. Head and thorax finely punctured. Head bright green, broader than the thorax; face oblique. Eyes pubescent. Antennæ black, seated near the mouth; scape green. Thorax purplish about the sutures. Abdomen æneous-green, lanceolate, very finely punctured, flat above, hardly keeled beneath, bright cupreous-red at the base, purplish at the tip, very much longer than the thorax, extending much beyond the fore-wings. Legs bright red; fore-femora incrassated. Wings cinereous; veins black; ulna shorter than the humerus, a little longer than the radius.

Length of the body 4 lines; of the wings 5 lines.

Tapayos. Discovered by Mr. Bates. In the British Museum.

*Epistenia æqualis.*

*Fœm.*—Læte cyaneo-viridis; caput antice bituberculatum; antennæ nigræ; scutellum æneo-viride; abdomen breve, lanceolatum, glabrum, apice purpurascens; pedes nigri; tarsi albi; alæ fusco-cinereæ.

*Female.*—Bright bluish-green. Head and thorax roughly scabrous or very largely punctured, as in *Perilampus*. Head æneous hindward, with a protuberance on each side in front, a little broader than the thorax; face extremely oblique, nearly horizontal. Antennæ black, stout, filiform, seated far from the mouth, not longer than the thorax. Scutellum æneous-green.

Abdomen short, lanceolate, smooth, convex above, keeled beneath, purplish at the tip, not longer than the thorax. Legs black, hardly stout; tarsi whitish, with black tips. Wings brown-cinereous; veins black; ulna not one-fourth of the length of the humerus, much shorter than the radius.

Length of the body  $3\frac{1}{2}$  lines; of the wings 5 lines.

St. Paul. Discovered by Mr. Bates. In the British Museum.

#### Genus *LYCISCA*.

##### *Lycisca hastata*.

*Fœm.*—Splendide viridis, longa, gracilis; antennæ nigræ; thoracis suturæ cupreæ; scutellum apice cyaneo-purpureum; metathorax purpureus, lateribus viridibus; abdomen cupreum, longissimum, scitissime punctatum, basi rufum, apicem versus filiforme, apice viridi; pedes rufescentes, tibiis apice tarsisque nigris, femoribus anticis incrassatis; alæ anticæ subfuscescentes.

*Female.*—Brilliant green, long, slender. Head and thorax thickly punctured. Head a little broader than the thorax; face nearly vertical. Antennæ black; first joint cupreous, inserted at some distance from the mouth. Thorax cupreous along the sutures. Prothorax well developed, attenuated in front. Sutures of the parapsides very distinct; scutellum bluish-purple at the tip. Metathorax purple, transverse, short, bright green on each side. Abdomen sessile, lanceolate, very long, much attenuated, very finely punctured, flat above, keeled beneath, red at the base, cupreous hindward, more than twice the length of the thorax; apical part filiform, very long, dark purplish-æneous, bright green at the tip. Legs reddish; coxæ bright green; tibiæ towards the tips and tarsi black; fore-femora incrassated; fore-tibiæ short, slightly dilated beneath. Wings cinereous. Fore-wings slightly brownish-tinged; veins black; ulna much more than half the length of the humerus, a little shorter than the radius; cubitus continued nearly to the tip of the wing by a supplementary slightly curved vein, which is emitted by the stigma; a blackish spot at the end of the humerus and another on the stigma.

Length of the body 9 lines; of the wings 6 lines.

Ega. Discovered by Mr. Bates. In the British Museum.

##### *Lycisca apicalis*.

*Fœm.*—Læte cyaneo-viridis; antennæ nigræ; thorax sat brevis; scutum et scutellum cuprea; abdomen lanceolatum, scitissime punctatum, apicem versus purpurascens, filiforme; pedes rufi;

femora antica sub-incrassata; alæ anticæ suffuscescentes, maculis duabus nigricantibus.

*Female*.—Bright bluish-green, elongate. Head and thorax thickly punctured. Head hardly broader than the thorax; face oblique. Antennæ black, filiform, not longer than the thorax; first joint green, inserted near the mouth. Thorax shorter than in the preceding species. Prothorax short, transverse. Scutum and scutellum cupreous; the latter green at the tip, beyond which the metascutellum terminates in a curved spine. Abdomen sessile; lanceolate, much attenuated, very finely punctured, flat above, keeled beneath, a little more than twice the length of the thorax; sutures of the segments purplish; apical part filiform, compressed, purplish. Legs red; fore-femora slightly incrassated; fore-tibiæ short. Wings cinereous. Fore-wings slightly brownish-tinged, with two blackish spots; veins black, in structure like those of the preceding species.

Length of the body 8 lines; of the wings 6 lines.

Eggs. Discovered by Mr. Bates. In the British Museum.

#### Genus BALCHA.

*Fœm*.—Corpus longum, angustum. Caput et thorax dense punctata. Caput thorace non latius; facies non obliqua. Antennæ filiformes, gracillimæ, thorace longiores. Prothorax brevissimus. Parapsidum suturæ indistinctæ; scutellum sat parvum. Metathorax brevis. Abdomen sessile, lanceolatum, compressum, glabrum, planum, subtus carinatum, postice sub-ascendens, thorace fere duplo longius. Pedes breves, robusti; femora antica sub-dilatata. Alæ sat angustæ.

*Female*.—Body long, narrow. Head and thorax thickly punctured. Head as broad as the thorax; face vertical. Antennæ filiform, very slender, seated rather far from the mouth, longer than the thorax. Prothorax very short. Scutum broader than long; sutures of the parapsides indistinct; scutellum rather small. Metathorax short. Abdomen smooth, sessile, lanceolate, compressed, flat above, keeled beneath, slightly ascending hindward, almost twice the length of the thorax. Legs short, stout; fore-femora slightly dilated. Wings rather narrow; ulna more than half the length of the humerus, as long as the radius; cubitus rather long.

This genus seems to be most nearly allied to *Stenocera*, but is sufficiently distinct.

*Balcha cylindrica.*

*Fœm.*—Viridis; caput et thorax purpureo cyaneo et cupreo varia; antennæ nigræ, articulo 1° fulvo; abdomen æneo-viride, apicem versus cupreum; pedes nigri, tibiis pallide flavis, tarsis fulvis, tibiis tarsisque anticis rufescentibus; alæ cinereæ, apice fuscescentes.

*Female.*—Green. Head and thorax varied with purple, blue, and cupreous. Antennæ black; scape tawny. Abdomen æneous-green, bright cupreous towards the tip. Legs black; trochanters and knees reddish; tibiæ pale yellow, black at the base, tawny at the tips; tarsi tawny; fore-tibiæ and fore-tarsi reddish. Wings cinereous, brownish towards the tips; veins black.

Length of the body  $5\frac{1}{2}$  lines; of the wings 5 lines.

Port Natal. Discovered by M. Gueinzus. In the British Museum.

## Genus PRIONOPELMA.

*Prionopelma consors.*

*Fœm.*—Læte viridis, cyaneo purpureoque varia; antennæ nigræ; abdomen rufum, apice cyaneo-viride; oviductus corpore duplo longior; pedes nigri, coxis femoribusque rufis; alæ cinereæ.

*Female.*—Bright green, varied with blue and with purple. Antennæ black, longer than the thorax. Abdomen bright red, bluish-green at the tip, keeled beneath, not longer than the thorax. Oviduct and its sheaths more than twice the length of the body. Legs black; coxæ and femora red. Wings cinereous; veins black.

Length of the body 6 lines; of the wings 8 lines.

New Grenada. Discovered by Mr. Stevens.

*Prionopelma purpurea.*

*Fœm.*—Læte cyanea, purpureo varia; antennæ æneo-nigræ, filiformes; prothorax et metathorax breves; scutum bene determinatum, disco excavatum; pectus viride; abdomen purpureo cupreum, subtus viride; oviductus corpore plus duplo longior; femora intermedia apice incrassata testacea; tibiæ intermediae basi testaceæ; alæ anticæ vitta lata nigricante.

*Female.*—Bright blue, varied with purple. Antennæ filiform,

æneous black, longer than the thorax; scape dark green. Prothorax and metathorax short. Scutum of the mesothorax much developed, excavated in the disk. Pectus bright green, mespectus very large. Abdomen purplish-cupreous, bright green beneath, narrower but not longer than the thorax. Sheaths of the oviduct much more than twice the length of the body. Legs æneous-black; coxæ and femora green, tinged with blue and purple; middle femora incrassated at the tips, which are testaceous; middle tibiæ elongated, with a long apical spur, testaceous at the base; middle tarsi incrassated. Wings cinereous. Fore-wings with a broad blackish stripe; veins black; ulna much shorter than the humerus, longer than the radius; cubitus rather long.

Length of the body 5 lines; of the wings 7 lines.

Tapayos. Discovered by Mr. Bates. In the British Museum.

*Var. Female*.—Smaller. Head green. Thorax bluish-green, with purple streaks. Wings with a narrower discal stripe.

Length of the body 4 lines; of the wings 5 lines.

Ega. Discovered by Mr. Bates. In the British Museum.

This can hardly be the female of *P. splendens*, for the cubitus forms a less acute angle with the radius, and the stigma is larger.

*Prionopelma splendens*.

*Mas*.—Læte viridis; antennæ æneo-virides, extrorsum crassiores; thorax purpureo lineatus; scutum non excavatum; abdomen fusiforme, disco purpurascente cupreo; pedes virides, femoribus tibiisque intermediis rufis; alæ fumoso-fuscæ, basi cineræ.

*Male*.—Bright green. Head largely punctured; grooves of the front purple. Antennæ æneous-black; scape purple, green beneath; flagellum slightly increasing in thickness outward; club elongate-conical, excavated beneath, not broader than the preceding joint. Thorax with purple lines along the sutures; scutum not concave. Abdomen fusiform, narrower and a little shorter than the thorax; disk purplish-cupreous. Legs bright green; tarsi black; middle femora and middle tibiæ red, the latter with black tips. Wings smoky-brown, cinereous towards the base; veins brown; stigma extremely small.

Length of the body  $4\frac{1}{2}$  lines; of the wings 6 lines.

Villa Nova. Discovered by Mr. Bates. In the British Museum.

## Genus ENTEDON.

*Entedon perturbatum.*

*Mas.*—Aureo-viride; caput antice cyaneo-viride; antennæ nigræ, filiformes, basi cyaneo-virides; parapsidum suturæ indistinctæ; petiolus brevis; abdomen cupreum, breve, disco basali flavescente; pedes cyaneo-virides, tarsi posterioribus albis; alæ hyalinæ.

*Male.*—Golden green. Head and thorax rather largely punctured. Head fully as broad as the thorax, bluish-green in front. Antennæ black, filiform, as long as the thorax, acuminate at the tips; scape bluish-green. Prothorax very short. Sutures of the parapsides indistinct. Metathorax well developed. Petiole short. Abdomen cupreous, smooth, short, elliptical, shorter than the thorax; basal part of the disk dull yellowish. Legs bluish-green; knees, tarsi, and tips of the tibiae, white; fore-tarsi piceous. Wings limpid; veins brown; ulna as long as the humerus; radius and cubitus very short.

Length of the body  $1\frac{1}{2}$  line; of the wings  $2\frac{1}{2}$  lines.

Port Natal. Discovered by Mr. Plant. In the British Museum.

---